10¢ A COPY

The OIL WEEKLY

September 4, 1925 Volume 38. No. 11

It's a Wilson

No other tongs embody as many features

1. Drop-forged—therefore stronger.
2. Spring on latch—adds convenience and safety.
3. Rugged Latch—to withstand severe strain.
4. 2-Step Lug—to fit pipe, joint and coupling without adjustment.
5. Balanced jaws—preventing flopping and insuring ease in handling.
6. Heavy jaw pins—made of special alloy steel to give unlimited service.
7. Long lever—for easier operation—and there are many other advantages.

Genuine Wilson 2-step, spring-latch Rotary Tongs

Request Folder

Wilson & Willard Mfg. Co.

MANUFACTURERS

It's a Wilson

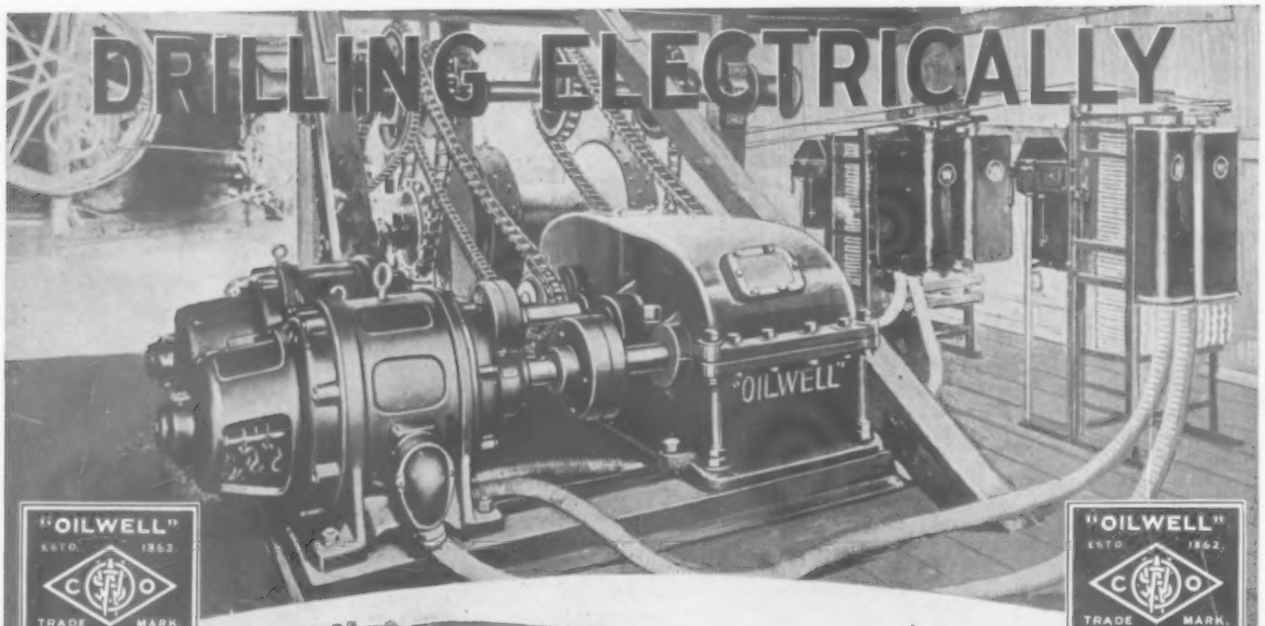
Distributed By WILSON OIL TOOLS CORPORATION

Factory and Distributors Office
2501 E. Vernon Ave.
Los Angeles, California U. S. A.

Sales Offices:

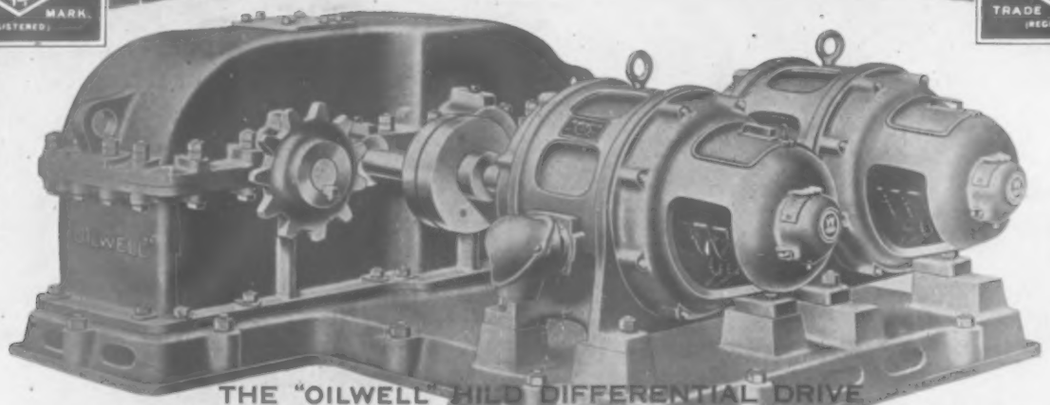
Tulsa, Okla., 409 Atlas Life Bldg. Fort Worth, Texas, 803 Dan Waggoner Bldg. Houston, Texas 530 West Building

DRILLING ELECTRICALLY



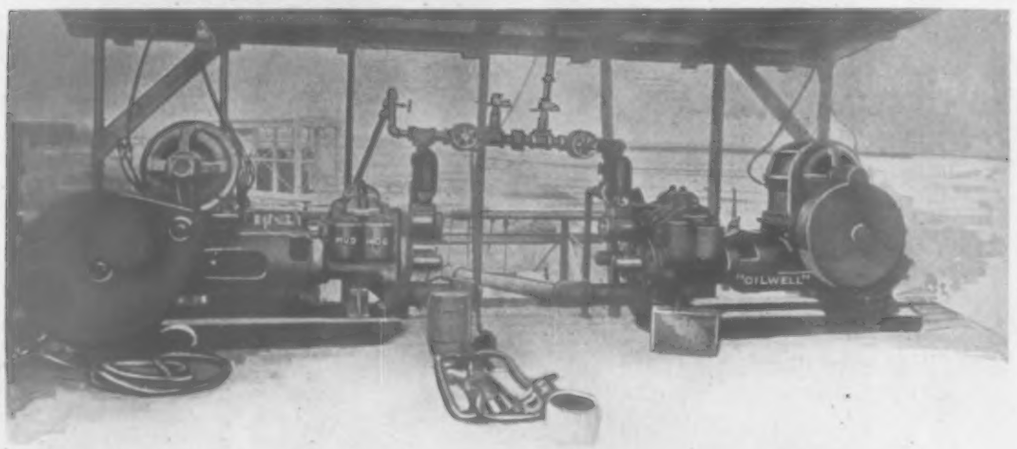
"OILWELL" ESTD. 1862 TRADE MARK. (REGISTERED)

"OILWELL" ESTD. 1862 TRADE MARK. (REGISTERED)



THE "OILWELL" HILD DIFFERENTIAL DRIVE

The "OILWELL" Hild Differential Drive is an electrical unit which is used in connection with the standard rotary draw works or hoist in exactly the same way as a steam drilling engine is used—but in addition, it ***automatically*** feeds the bit, and ***automatically*** regulates or varies the bit pressure according to the variation in formations encountered. For complete design, construction, and operation data, write for Bulletin No. 60 or get a copy at any of our 100 Branches.



OIL WELL SUPPLY CO.

NEW YORK—LOS ANGELES—PITTSBURGH, U.S.A.—SAN FRANCISCO—TAMPICO—LONDON

WORLD'S OLDEST AND LARGEST MANUFACTURERS OF OIL FIELD EQUIPMENT

THE OIL WEEKLY. Issued weekly by the Gulf Publishing Co., 1716 Dallas Ave., Houston, Texas. Subscription price $1.00 per year; 10 cents per copy. Entered as second-class mail matter December 23, 1916, at the post office at Houston, Texas, under act of March 3, 1879.

Their Languages Differ

—but the language of SERVICE is universal, which explains why the reputation of GASO Pumps is world-wide.

In recent months we have received an order for four GASO Pumping Units, duplicating one we shipped about a year ago to *Baku, Russia.*

In the same period GASO Pumps have left Tulsa bound for *India, Egypt, British West Indies, South America, Roumania* and *Spain.*

To those who know foreign methods of investigating equipment, export orders have a particular importance. The engineers of these far-away companies realize that in buying American goods they are thousands of miles away from factory service. Consequently, perfect operation, low maintenance and long life simply must be built into the goods they buy.

All of which explains why so many specify GASOS.

GASO PUMP & BURNER MFG. CO., *Tulsa, Oklahoma*

GASO PUMPS

for every oil industry need

Why Chester Steel Casing Is Good Casing

From the open hearth furnace to the shipping floor, Chester zealously guards its casing by every possible test and inspection.

For instance, both crop ends of every piece of Chester Casing are crushed for a test of the weld and an inspection of the metal.

This inspection is no hit-or-miss affair. Chester inspects exhaustively every length of pipe, even to the point of examining each end of each piece for character of thread, proper pitch and accuracy of taper.

That this rigid inspection has produced results is evident when you think of the enviable position South Chester Steel Casing has established in the deep well oil fields for its strength of weld, lasting quality, freedom from crystallization under working strains and its smooth, sharp threads, insuring tighter joints.

Dodge Syndicate Well, Huntington Beach, Calif., in which 4165 feet 8¼-inch, 36-lb., 8 thread, of Chester Steel Casing is used.

Our Distributors Carry a Complete Range of Stock

SOUTH CHESTER TUBE COMPANY

Chester, Penna.

Pittsburgh New York Tulsa Los Angeles

Also Makers of Wrought Iron Casing from 4½" to 12½"

DISTRIBUTORS:

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Hillman-Cooney, Inc., 1118 Santa Fe Ave., Los Angeles Cal.

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CHESTER

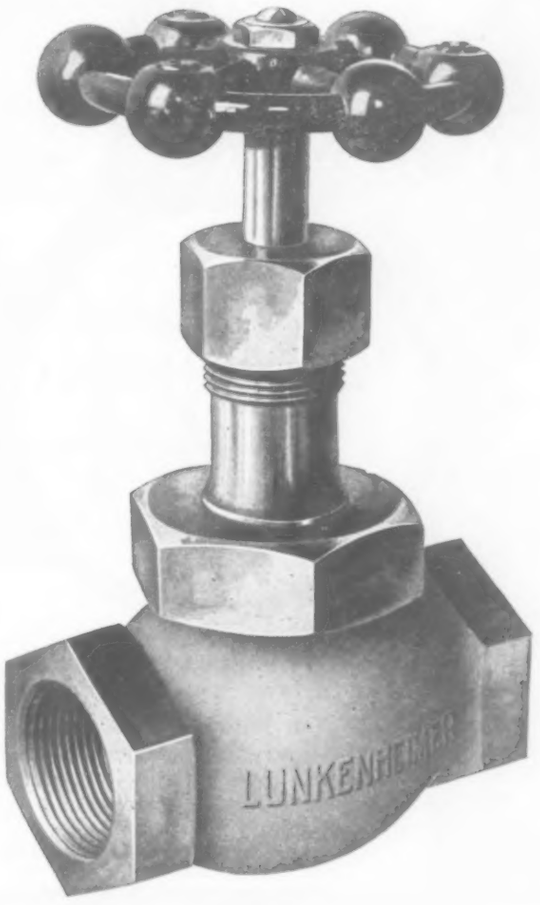
STEEL CASING

SPECIALISTS IN CASING FOR DEEP WELL DRILLING

The best evidence

of the superiority of Lunkenheimer Regrinding Valves is the universal satisfaction which they are giving to thousands of users

Lunkenheimer Distributors, located in all commercial centers, carry complete stocks and render prompt service. They are prepared to present a plan of valve standardization economically adaptable to any installation. Let them advise you with the knowledge born of wide experience in supplying similar service to many satisfied users.



Lunkenheimer Bronze Regrinding Valve
Inside Screw, Union Bonnet
⅛ to 4 in.
Outside Screw and Yoke
1½ to 6 in.
Working steam pressures up to 300 pounds

THE LUNKENHEIMER CO.

"QUALITY"

CINCINNATI, OHIO, U. S. A.

NEW YORK CHICAGO BOSTON LONDON

EXPORT DEPT. 129-135 LAFAYETTE ST., NEW YORK

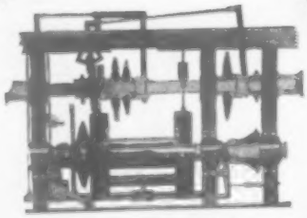
TITUSVILLE

"No. 6" Rotary

"ACME" Swivel

"Acme" Twin Cylinder Engine

ROTARY OUTFITS



"Acme" Draw Works

Boilers

Severe tests where the drilling is deepest and hardest have conclusively proven the worth of the Titusville Rotary Equipment.

That built-in reserve power,—that rugged construction,—that smooth running and economy of operation,—so typical of all Titusville Units have combined to make "TITUSVILLE" synonymous with the best and most approved type of rotary drilling machinery.

The Continental man will give you all the facts.

The TITUSVILLE IRON WORKS Co.
TITUSVILLE, ~ PENNA.

TITUSVILLE OIL COUNTRY MACHINERY

For Heavy Duty, What Valves Are Best?

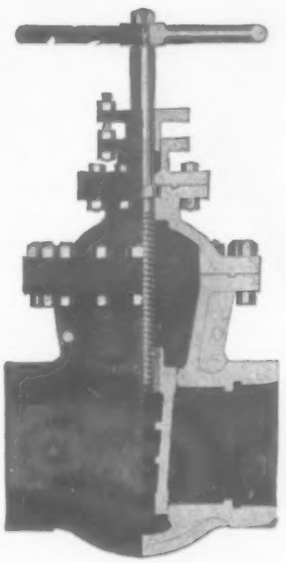
Quite Naturally—They're

KEROBEST

The Valves and Fittings which assure Safety regardless of pressure

The Results of Correct Design, Manufacture and Testing Methods.

Made for every Oil Field and Refinery Service.



Write Today For Complete KEROTEST Details

Pittsburgh Reinforced Brazing and Machine Co.
Pittsburgh, Penna.

Carried in stock and sold by

GRINNELL COMPANY OF THE PACIFIC
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NORVELL-WILDER HARDWARE COMPANY
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OIL WELL SUPPLY COMPANY
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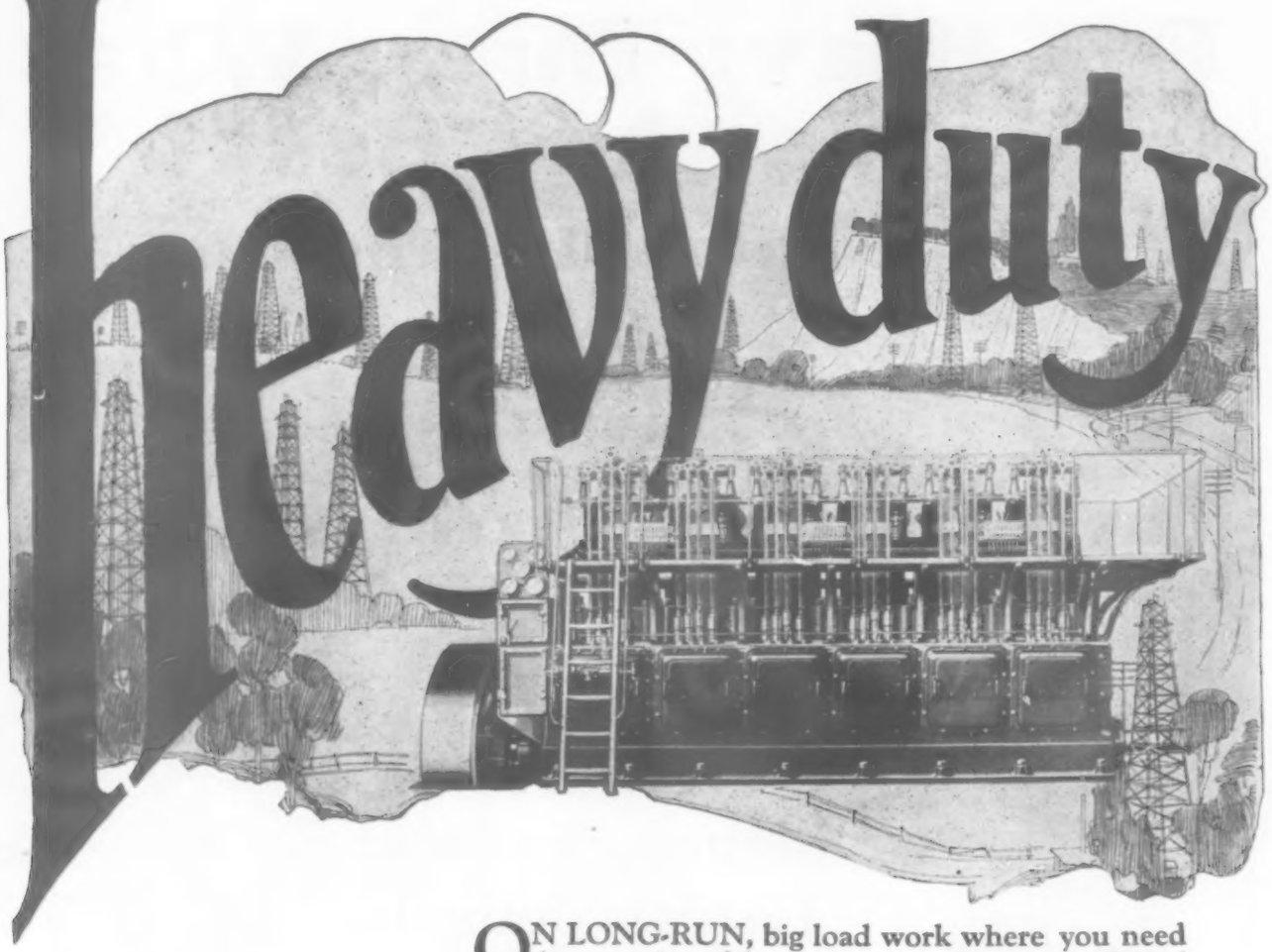
heavy duty



ON LONG-RUN, big load work where you need large units of horsepower, a Bessemer Diesel Engine is a power source of long-lasting economy. Bessemer Diesels are engineered and built for this constant, heavy duty service, and will deliver positive power under constant full load without strain or labor.

From bed plate to rocker arms, Bessemer Diesels are built for the hardest kind of heavy duty. They are built over-strength throughout—with large bearings, crank-shafts, cam-shafts, and long pistons—to withstand years of wear.

For every type of heavy duty service in the Oil Industry a Bessemer Diesel will work harder, last longer and cost you less.

Send for complete engineering details on Bessemer Diesel construction.

they say—

"Constant Full Load never bothers our Bessemer Diesel"

THE BESSEMER GAS ENGINE COMPANY
62 York Street ∴ ∴ Grove City, Pa.

BESSEMER

BESSEMER OIL FIELD ENGINES – COMPRESSORS – VACUUM PUMPS – ROLLER PUMPING POWERS

For Complete PIPE LINE UNITS

PARKERSBURG Bolted Steel Tanks with Swing Pipe Mechanisms are economical units for pipe line storage. These units can be supplied completely equipped with vapor-tight fixtures for prevention of losses through evaporation.

Parkersburg Swing Pipe Mechanisms can be applied to any steel tanks — any make or size — to a farm of 55's, a battery of Parkersburg bolted, or to other tanks made from lighter gauge materials.

Swing Joint doesn't depend upon side sheets for rigidity. It is *self-supporting* — rigid — and will not sag, twist, or bind.

Winch is enclosed in a gas-tight Hatch Box, for installation on the tank deck, where it is convenient for the gauger. The cable is not exposed to the weather.

Swing Pipe can be supported in any position without need for ratchets or locking devices — the spooling drum operates through worm and gear.

The Parkersburg line includes tanks and equipment developed to meet the handling and storage requirements of every producing field. Well-stocked Parkersburg warehouses — and Parkersburg Tank-setting Services — are convenient to your operations.

Written inquiries given prompt, careful attention

THE PARKERSBURG RIG & REEL CO.

Main Office and Works
Parkersburg, West Virginia

New York Office
30 Church Street

California Representatives

BUCK & STODDARD 485 California St., San Francisco, Calif.
Box 720, Arcade Station, Los Angeles, Calif.

District Offices and Distributing Warehouses from which Parkersburg Service is Available

ARKANSAS
*El Dorado
Louann
Smackover
McNeil

COLORADO
Denver

KANSAS
Eldorado
Madison

LOUISIANA
*Shreveport
Cotton Valley
West Lake

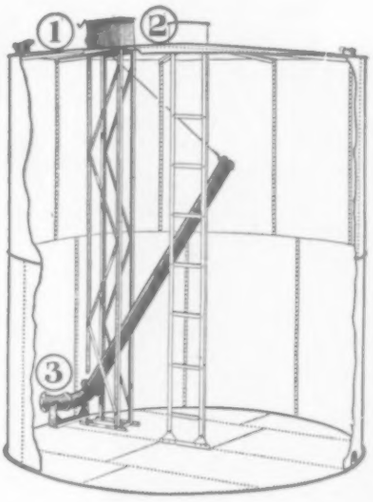
OKLAHOMA
*Tulsa
Bristow
Drumright
Hominy
Holdenville
Okemah
Tonkawa
Wilson
Shidler
Stroud
Wetumka
Wewoka

WYOMING
*Casper

WEST VIRGINIA
Parkersburg
Clarksburg

TEXAS
*Houston
Best
Breckenridge
Corsicana
Luling
Olney
Orange
Panhandle
Ranger
Wichita Falls

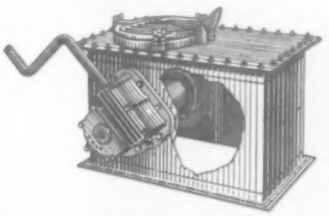
*District Offices



1 Parkersburg Self-Clamping Gauge Hole Covers remain closed and tight until opened by raising the foot-lever. The joint between the lid and the body of the cover is sealed by a special composition gasket.

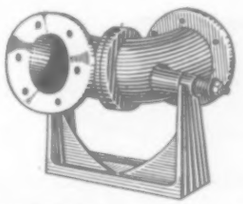
These gauge hole covers are recommended for flow, lease, or stock tanks, and for high or low pressures.

The Self-Clamping feature is a simple toggle-link mechanism. A glance at the illustration will convince you of its simplicity and its merits.



2 Parkersburg Hatch Box, enclosing the spool and cable, is electrically welded at joints and to re-enforcing angles. The cover is provided with a "look" opening and lid. The box is bolted to the tank deck — with gasket between, making a gas-tight joint. Use of stuffing boxes is eliminated.

Hand crank turns spool through a worm and gear — no locking device needed to hold swing pipe in any position. The latticed column support for the hatch box gives added stiffness to the deck, and carries the weight of the swing pipe, hatch box and winch.



3 Both halves of the Parkersburg Swing Joint are held in close contact by a rod and coiled spring; the joint is leakproof. The supporting cradle carries the weight of the Swing Joint — eliminating any tendency for sagging, twisting, or straining on side sheets or bolts.

Butler Umbrella Top
Delivery Can

Butler Screw Top
Delivery Can

What kind of can do you like?

Different oil men desire certain different features in delivery cans. To satisfy these wants Butler has standardized on two styles that come in 5 and 10-gallon sizes.

An umbrella top?

Many prefer the Butler umbrella top. It is well proportioned and especially designed to give it strength and to make it fit close. This type of top is convenient and substantial. A stout chain holds lid to can.

A special apron at the bottom of the neck, where it joins the breast of the can, is a valuable safeguard against the splashing out of contents. The lower part of the apron extends downward about one inch and prevents the bulk of the liquid from splashing into the neck. This splash construction is an unique feature and an improved design.

Or a screw top?

Others prefer the Butler Screw Top Delivery Can because the lid may be more tightly fastened. The top is large enough to permit easy cleaning. This type has a 5-inch threaded iron screw top which is fastened to can by a heavy chain.

Butler makes both types!

To maintain our usual complete service we offer both styles and carry them in stock for speedy deliveries.

Both styles are made of the best grade tight-coated galvanized steel. Side and neck seams are welded. Breast seams are double locked seamed. Straight sides permit full drainage. Bottoms are reinforced with heavy band. Bottoms are bilged and corrugated. This provides extra stiffness and prevents denting. Other features add to the long life of Butler Cans!

What style do you prefer? Write for interesting quotation and important details.

New COMPLETE Catalog

A new complete Oil Supplies Catalog has just come off the press. 96 pages, illustrated in 4 colors. It fully describes Butler Cans. A copy will be sent on request.

TRADE STEEL BUTLER PRODUCTS MARK

Other BUTLER Products

Ready-Made Steel Buildings
Cans Truck Tanks
Funnels, Underground Tanks
Buckets Storage Tanks
Measuring Pumps, Etc.

Butler Manufacturing Co.

Kansas City, Missouri **Minneapolis, Minnesota**

SPANG

Weldless Drilling Jars

Referring to Spang Weldless Jars one user said:

"We have used a set of your Jars for nine months drilling granite and would not trade this set now for a set of any other make of jars we know of. They are still good for much more service."

Another user said:

"We broke a great many jars drilling through Pyrites of iron. In fact, we could find none that would withstand it until we found out about Spang Weldless Jars. Since then we have been having no trouble with our Jars."

Two tough jobs for any jar—but Spang Weldless Jars are made to stand hard work. The tough, properly heat treated alloy steel, made into jars by the Weldless process, gives them the strength and wearing qualities needed so much to render safe and economical service.

What Spang Jars Will Mean to You

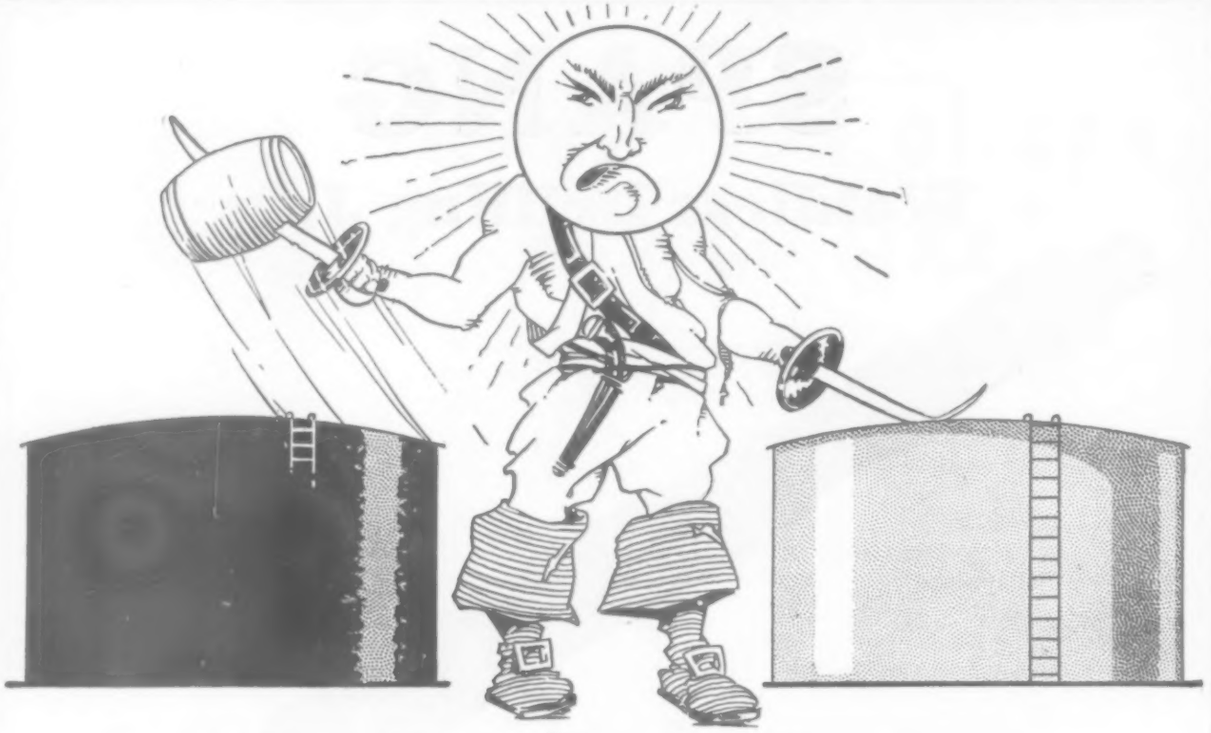
- Excellent Joints
- Greatly Increased footage drilled.
- Elimination of jar fishing jobs.
- Reduction of drilling risks.
- Three to five times as much service as other jars.
- Increased profits.

SPANG
Thread Protector

Protect your Tool Joints with SPANG Thread Protectors. Like all Spang products they guarantee absolute satisfaction and long durable service.

Spang and Company
Butler, Pa.

Sold at Leading Supply Houses Everywhere



"Old Sol" the Oil Pirate— Foiled by Aluminum Paint

[*ALUMINUM PAINT consists of Aluminum Bronze Powder mixed with a suitable vehicle of oil or varnish*]

OLD Sol snatches hundreds of barrels of oil yearly from every dark-colored tank. Aluminum Paint staves him off.

Aluminum Paint keeps the oil *cool*—cuts evaporation to a minimum.

Aluminum Paint *keeps* its reflecting powers. Fumes and gases have little effect upon its lustre.

And Aluminum Paint protects tanks and tank-cars, too. It gives a sturdy, waterproof coat that fights rust and weather.

Yet Aluminum Paint costs no more than ordinary paints.

Protect your oil profits—protect your tanks and tank-cars—conserve your paint money by using Aluminum Paint.

Write us today for samples of Aluminum Bronze Powder and a copy of our booklet—"Aluminum Paint." It tells the story in an interesting, understandable way.

Some Facts about Aluminum Paint

- —Made of pure metallic aluminum
- —Keeps tanks cool by reflecting—instead of absorbing—sun's heat
- —Small cost—first and last
- —Outlasts most other paints
- —Fumes and gases do not darken it readily
- —One coat hides original color of tanks
- —Flows on easily
- —560-600 square feet coverage per gallon
- —Saves oil—protects tanks—yet costs no more
- —Improves lighting when applied to building interiors

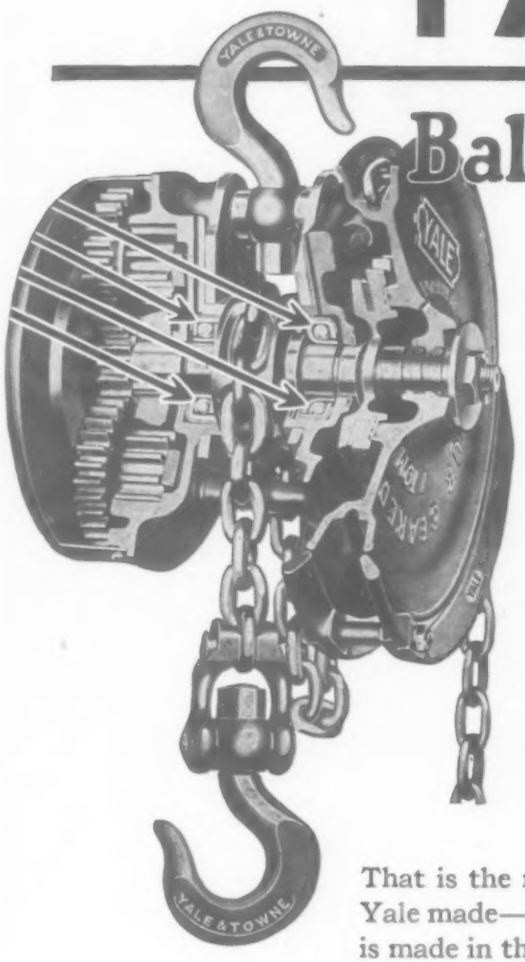
Aluminum Paint

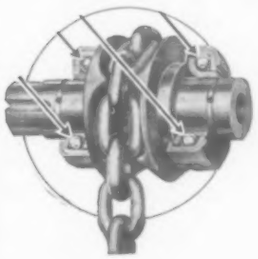
Aluminum Company *of* America
2402 Oliver Building
Pittsburgh, Pa.

OFFICES IN EIGHTEEN OTHER PRINCIPAL AMERICAN CITIES

TRADE **YALE** MARK

Ball Bearing Chain Block





Yale Electric Welded Chain
Rated capacity—
2,000 lbs.
Ultimate strength
13,339 lbs.

A Chain is as strong as its weakest link.

A Block is as strong as its weakest part.

That is the reason why every link of Yale Chain is Yale made—and why every part of every Yale Block is made in the Yale Plant, inspected by Yale Inspectors, and tested by Yale Engineers.

The new Yale Chrome-Vanadium Steel Ball Bearings are products of the Yale plant.

They give to the Yale Spur-Geared Block an increased efficiency never reached by any other make of hoisting device.

Yale Material Handling Equipment includes Spur-Geared, Screw-Geared and Differential Chain Blocks, Electric Hoists, I-Beam Trolleys, Overhead Crane Equipment, and Electric Industrial Trucks, Tractors and Trailers.

Factory Locking Equipment. To acquire locking control, security and convenience throughout the factory, use Yale Master Keyed Locks.

The Yale & Towne Manufacturing Co.

Stamford, Conn., U. S. A.

YALE MADE IS YALE MARKED

YALE Hoisting and Conveying Systems

REMEMBER

Fetty Long Strokes are being manufactured out of cast chrome vanadium steel and in two sizes. We can give you a 5 foot stroke or a 6 foot stroke.

Easy to install, simple to operate and every one of the many now in use are giving results.

Now in stock and ready for delivery.

Covered by United States and Foreign Patents

R. G. Garretson
771 Raymond Avenue
Long Beach, California.
Tel. 333-433.

R. N. Atmore
404 West First Street
Tulsa, Oklahoma
Tel. 3-3282

FETTY
Pumping Attachment
LONG STROKE
C. C. FETTY & CO., EL DORADO, KANSAS

The Only Rock Bit

with:

All Parts on Double Bearings

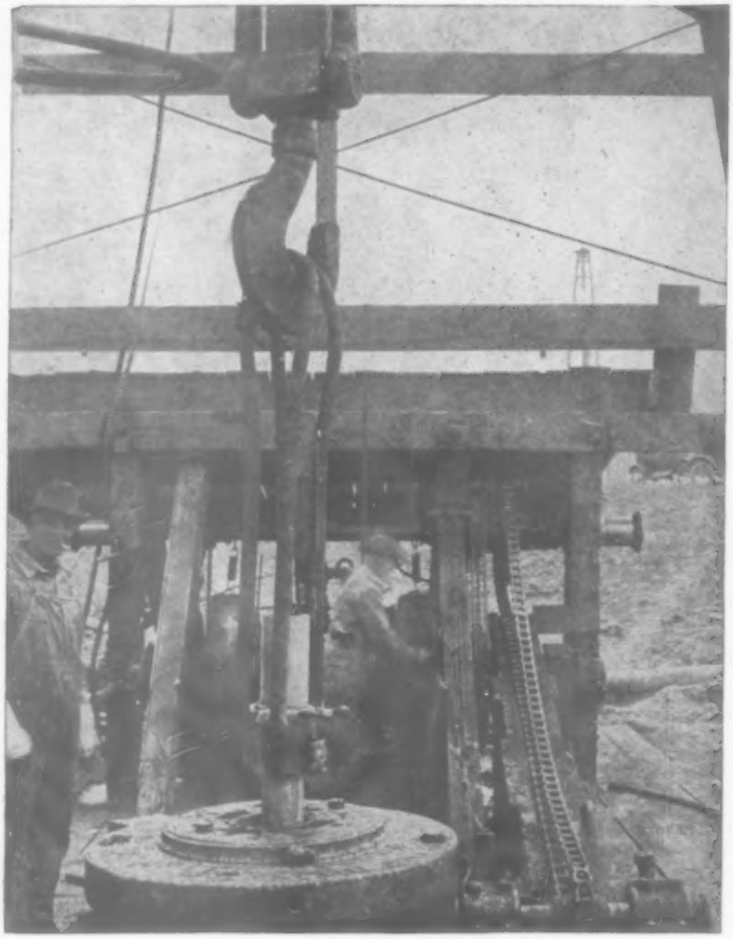
Non-freeze Connections

Unequalled Speed

Reamer Connection for Fishtail

Reed Roller Bit Co.

New York Houston Los Angeles



Wickwire Rotary Lines

The Real Rotary Line, Designed for Strength--and to eliminate Hang-up and Delays due to Wire Line Trouble.

Distributors:

Eastern Oil Fields

Slicker Pipe & Tool Company, Knox, Pa.

A. F. Keck & Co., Butler, Pa.

H. B. Mitchell Supply Co., Emlenton, Pa.

New Martinsville Supply Company, New Martinsville, W. Va.

Lloyd Smith Co., Bradford, Pa.

California Oil Fields

E. B. Wiggins, Inc., Los Angeles, Calif.

Mid-Continent Oil Fields

Murray Tool & Supply Co., Tulsa-Cleveland, Okla.

Federal Supply & Machine Co., Augusta-Winfield, Kansas

Atkinson & Sandefer, Breckenridge, Texas

Norvell-Wilder Hardware Co., Beaumont-Houston, Texas, and Shreveport, La.

Rocky Mountain Oil Fields

Midland Iron Works, Billings, Mont.

The Great Northern Tool & Supply Co., Kevin, Montana

Wickwire Spencer Steel Company

41 East Forty-second Street

NEW YORK CITY

BACKING UP THE FIELD PLAY

They had nothing to eat all day and then —the service of supply got thru the barrage and. "delivered the goods." It was important because the attack was ordered immediately and, with their vitality revived, nothing could stop the Marines — the battle was won.

Zero Hour . . .

The culmination of all the training, all the preparation — ZERO HOUR — the final test. The 'charge' is the grandstand play of war, but the great by-play going on behind the scenes is the non-combatant Service of Supply It is vital. Haye they plenty of ammunition? rations? sandbags? wire? reserves? These are questions quite as important to a General as the ability—the dash—the courage of the troops. Napoleon knew when he said "an army moves upon its stomach."

ZERO HOUR comes inevitably in the oil industry. It comes when the oil producing sand is suddenly reached or it is the emergency that might present itself at any time during the progress of drilling, when tools are lost or something jams or breaks — whatever happens the service of supply is vital.

Just signal *Service Of Supply* and the INTERNATIONAL SUPPLY COMPANY will take your needs within its grasp and give you back genuine, friendly, helpful service.

A good boiler is as important to the oil industry as a good firing-piece is to the army. That is why KEWANEE BOILERS are preferred in the oil fields. They stand the hardest use (even abuse) without big repair bills. They are the easiest fired boilers in the field. Their capacious dome and conservative rating gives a great reserve supply of steam. Ask any man who owns or fires one.

KEWANEE
OIL COUNTRY
BOILERS—

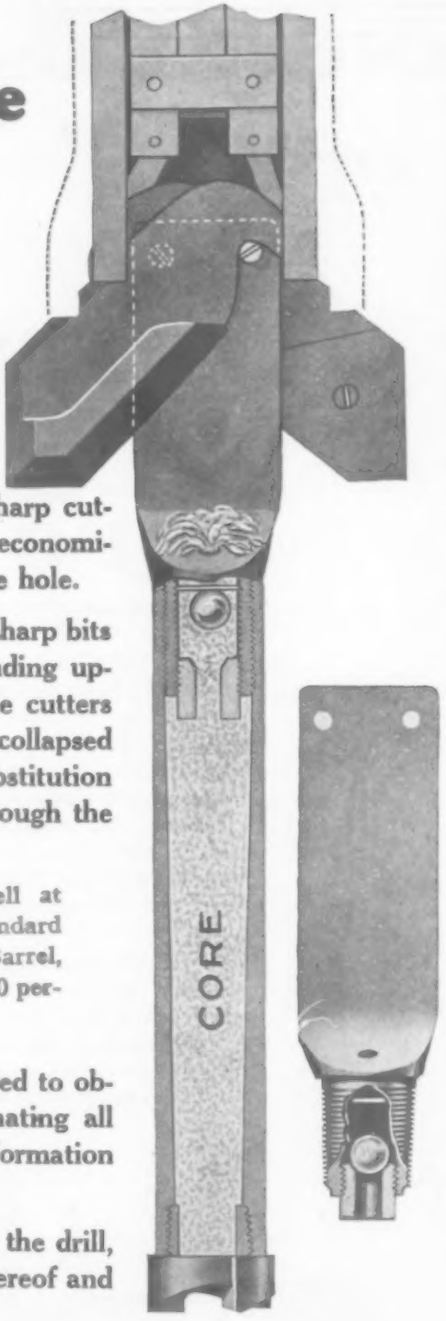
INTERNATIONAL SUPPLY CO.
TULSA OKLA.

40 H. P. Code	65 H. P. Code
45 H. P. Code	75 H. P. Code
50 H. P. Code	90 H. P. Code

Nineties are the largest in the field and are taking the lead in the rotary fields.

We carry, in salable sizes, non-code boilers where the A. S. M. E. code is required.

Why Not Use the Standard Collapsible Rotary Drill and Core Barrel



in drilling your next well? You will be surprised by great saving of time and fuel.

A scientifically heat treated sharp cutting edge can be constantly and economically maintained at bottom of the hole.

Dull cutters are replaced with sharp bits in from 15 to 30 minutes, depending upon depth of the hole. When the cutters become dull the drill is quickly collapsed and brought to the surface for substitution of cutters by a cable lowered through the drill stem.

Drilling a 2250-foot wildcat well at mouth of Cedar Bayou with a Standard Collapsible Rotary Drill and Core Barrel, Mr. C. T. Rucker took more than 100 perfect cores without a failure.

Only a few minutes are required to obtain a large perfect core—eliminating all "guessing" as to character of formation being penetrated.

Simply collapse and withdraw the drill, attach core barrel to lower end thereof and return to bottom of the hole.

The drill stem is not withdrawn until the hole is completed.

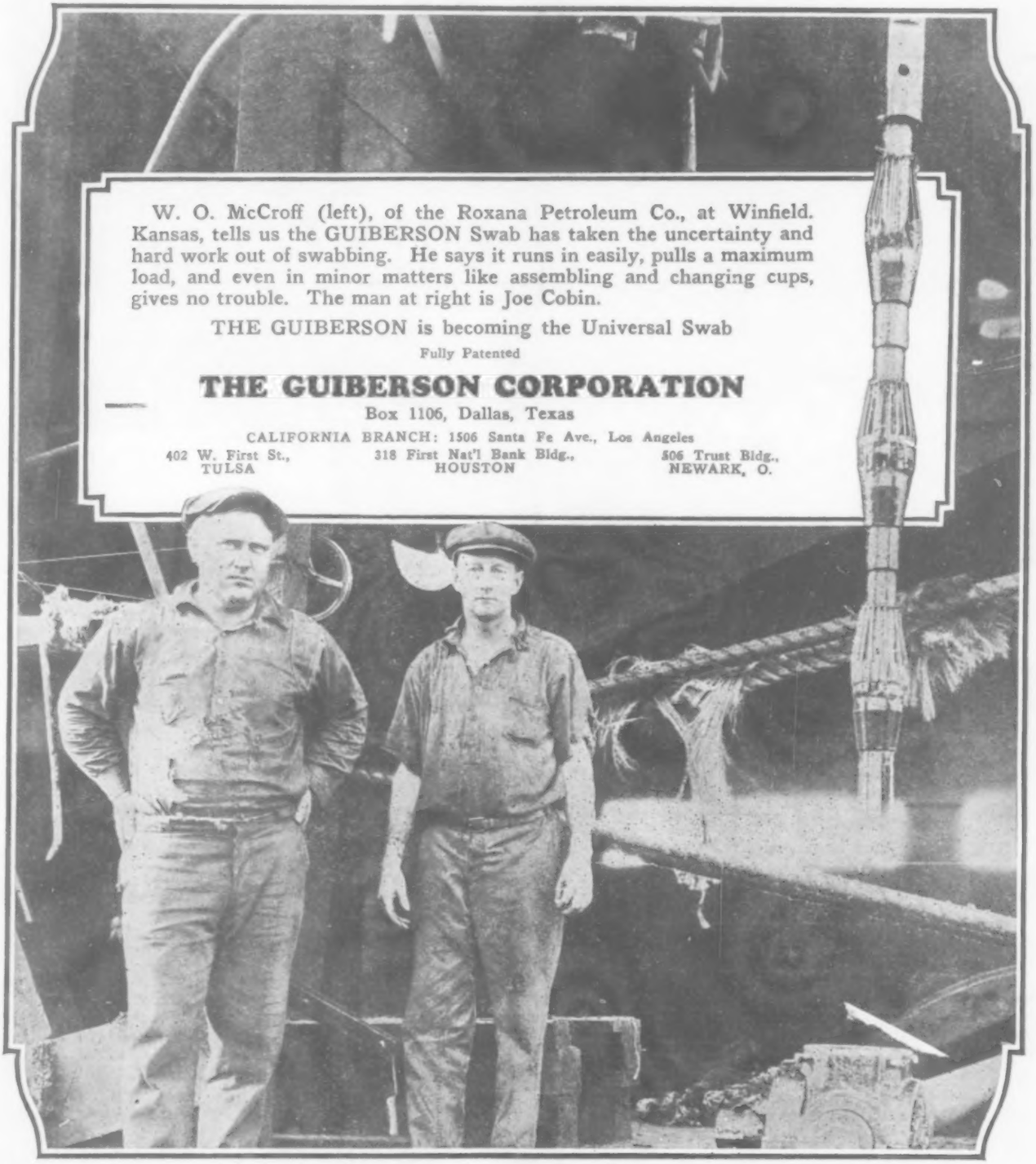
Write for Literature

O. M. CARTER

W. T. HILTPOLD, Sales Agent
206-7-8 Scanlan Bldg., HOUSTON, TEXAS

TOOK GRIEF OUT OF SWABBING

Easy to Assemble—Easy to Operate—Says Kansan



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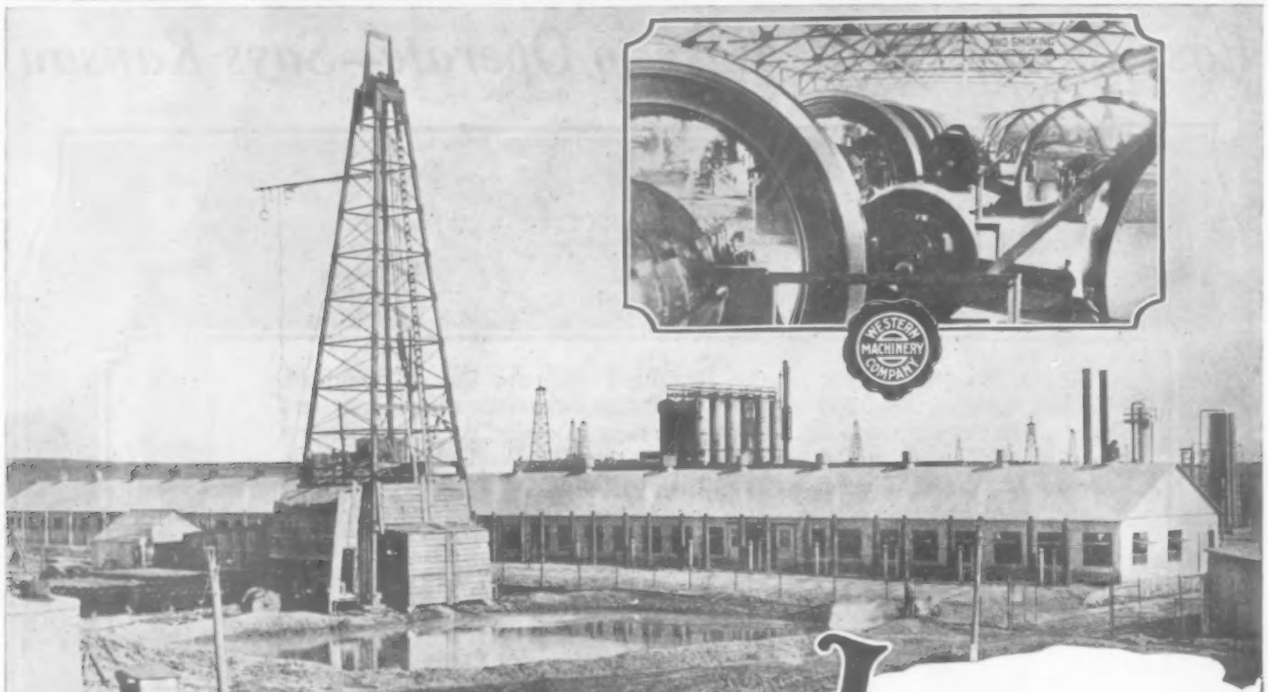

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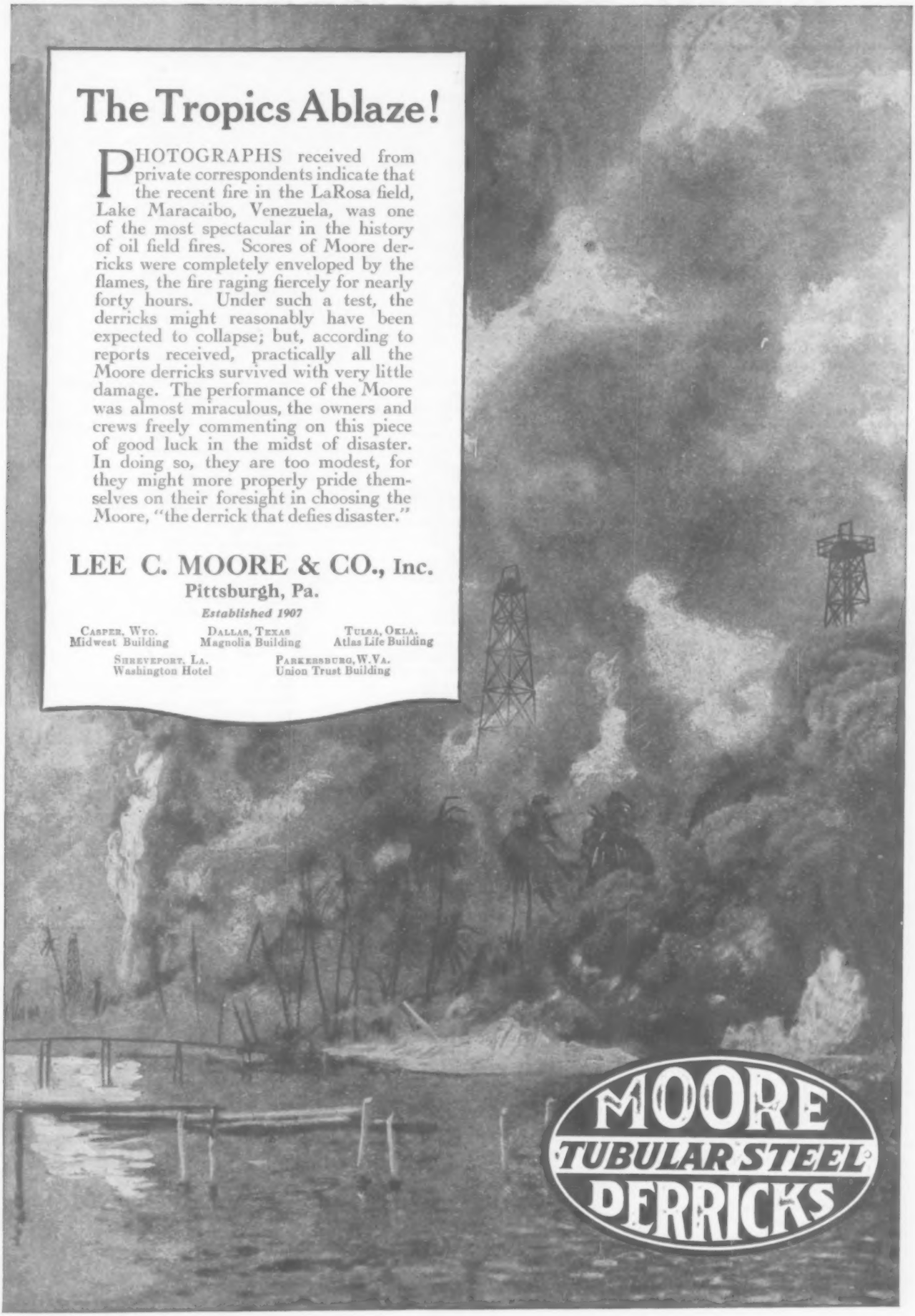

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Wildcatting in Texas Panhandle has its Obstacles
A Frozen Slush Pit

The OIL WEEKLY

September 4, 1925 Volume 38, Number 11

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TRANSIT FIELD PUMPS

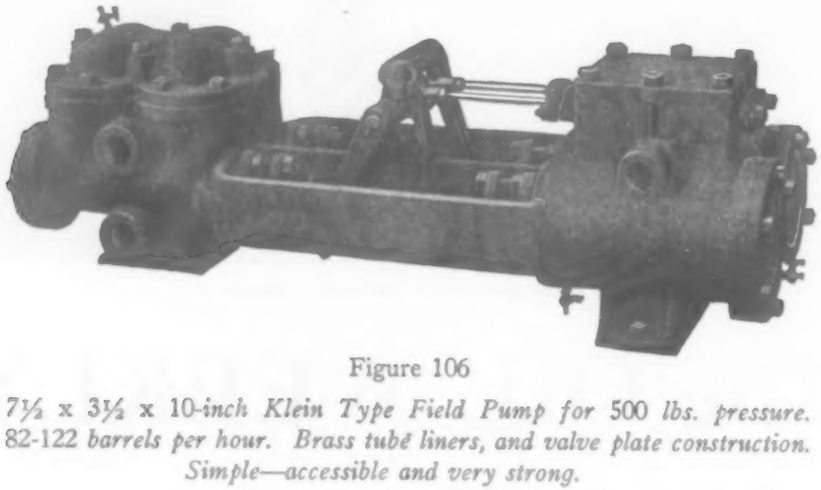

Figure 106

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Bulletin 102-A on request

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Field Work Responds to Weak Crude Market in August

By A. R. McTee
Staff Representative

WITH Oklahoma, Texas and Arkansas showing heavy losses in field work for August the number of completed wells dropped below that of July by more than 500. Along with this decrease comes a decline in the total crude production of the United States amounting to 1,618,862 barrels. The combined output of all fields was estimated at 65,079,240 barels against 66,698,100 barrels for July.

In a few instances states showing decreases in field work had increases in output: California, for instance, showed less work than July, but production was up approximately 375,410 barrels. Oklahoma was a similar example. Completions were 100 less in August, but the output of the state was up 152,500 barrels.

This situation can probably be explained by the fact that a good deal of work in these states was confined to old wells, cleaning them out and working them over to increase production or to restore wells that had been dead for a time.

In all fields there was a conspicuous absence of development trying for production in new territory, the most of the drilling being confined to inside locations. Even in the parts of the country where wildcatting is supposed to progress steadily. August showed a surprisingly small number of wells that attracted special attention.

The weak condition of the market was responsible for this attitude of indifference on the part of operators. There were rumors of cuts two weeks before any were actually made, and at the beginning of the month it was being talked that a crude cut was imminent.

Inglewood Past Peak

In California the most active fields were Inglewood, Athens-Rosecrans, Long Beach, and Torrance. Inglewood led with the highest number of completions and the biggest initial production. Although this field has been in the limelight in California for several months as a possible menace to the situation out there, it is supposed to have passed its peak during the month and is no longer regarded as a potential danger. Its decline in output was sufficient to cause it to drop to second place in the list of California fields. although the yield at Inglewood is still above 100,000 barrels.

The market in California showed no signs of weakening except in fuel oil. This was cut 30 cents, due probably to the surplus of heavy oil held in storage on the west coast, and also to the replenished supply in the Mid-Continent, from the Smackover district.

Mountain states were steady in field work, with practically the same number of completions as were shown last month, but there was a gain in production. Wyoming and Montana both showed a good deal of drilling, but Montana led in initial production. Activity was brisk in the Kevin-Sunburst field where 50 wells were completed, with an initial output of 15,632 barrels.

In Wyoming completions were heaviest at Salt Creek.

September will probably bring a slump in both completions and production from the Mountain States area due to the approach of unfavorable weather. Early winter will have a tendency to slow up work in the fields and will prevent much new work from getting under way.

Oklahoma-Kansas

Both Oklahoma and Kansas were off in completions as compared with July. The Braman pool was the center of new development in Oklahoma during the month, and a drilling compaign sufficiently large to thoroughly test the structure is assured for that area. Osage County led in Oklahoma completions and was followed by Okmulgee and Creek. Most of the Osage County wells were in the Burbank pool.

Greenwood and Cowley Counties in Kansas were responsible for the bulk of the work done in that state and afforded the most of the new production.

Arkansas was off more than 1,000,000 barrels in output and completions dropped exactly 100. Completions from the deep sand area of the Smackover field are becoming purely a matter of routine and the output of these wells seldom reaches 1000 barrels now. Extensive reductions in the crude market through both Arkansas and Louisiana will undoubtedly further check work during the coming month.

Work was slow in Louisiana with only 29 wells completed in all fields. There was a corresponding drop in production.

Throughout the Texas Gulf Coast and the central Texas fields the month was quiet. Several big wells were drilled at Hull, in the Gulf Coast, but these were inside locations and their flush did not hold up. Prospects were good at the close of the month for an extension to the South Liberty field, but the well being watched had casing trouble and had not been tested last week.

Texas Falls Off

Light oil production decline in Texas was greater during August by reason of a drop of approximately 300,000 barrels in the East Central Texas fault line fields, with about 180,000 barrels of this loss being credited to the Wortham field. A number of individual oil producing areas in North Texas registered gains in monthly output during August as result of field development holding steady, but the Central West Texas district fell short in equalling its output of the previous month.

Natural depletion of old wells producing from the Woodbine sand pay accounts

AUGUST U. S. PRODUCTION

Following is the gross estimated production of crude oil in the United States for the month of August as compiled by The OIL WEEKLY:

California	21,069,150
Mountain States	3,298,865
Eastern States	3,231,750
Texas	12,371,290
Oklahoma	13,813,865
Kansas	943,250
Arkansas	6,591,710
Louisiana	1,758,260
Total	65,079,240
July	66,698,102

PAST TWELVE MONTHS

The record for the past twelve months is an interesting study for comparison purposes, the following table giving field statistics for all states in the Union. Figures for Southern California begin in June, 1924, and those for Mountain States begin in November.

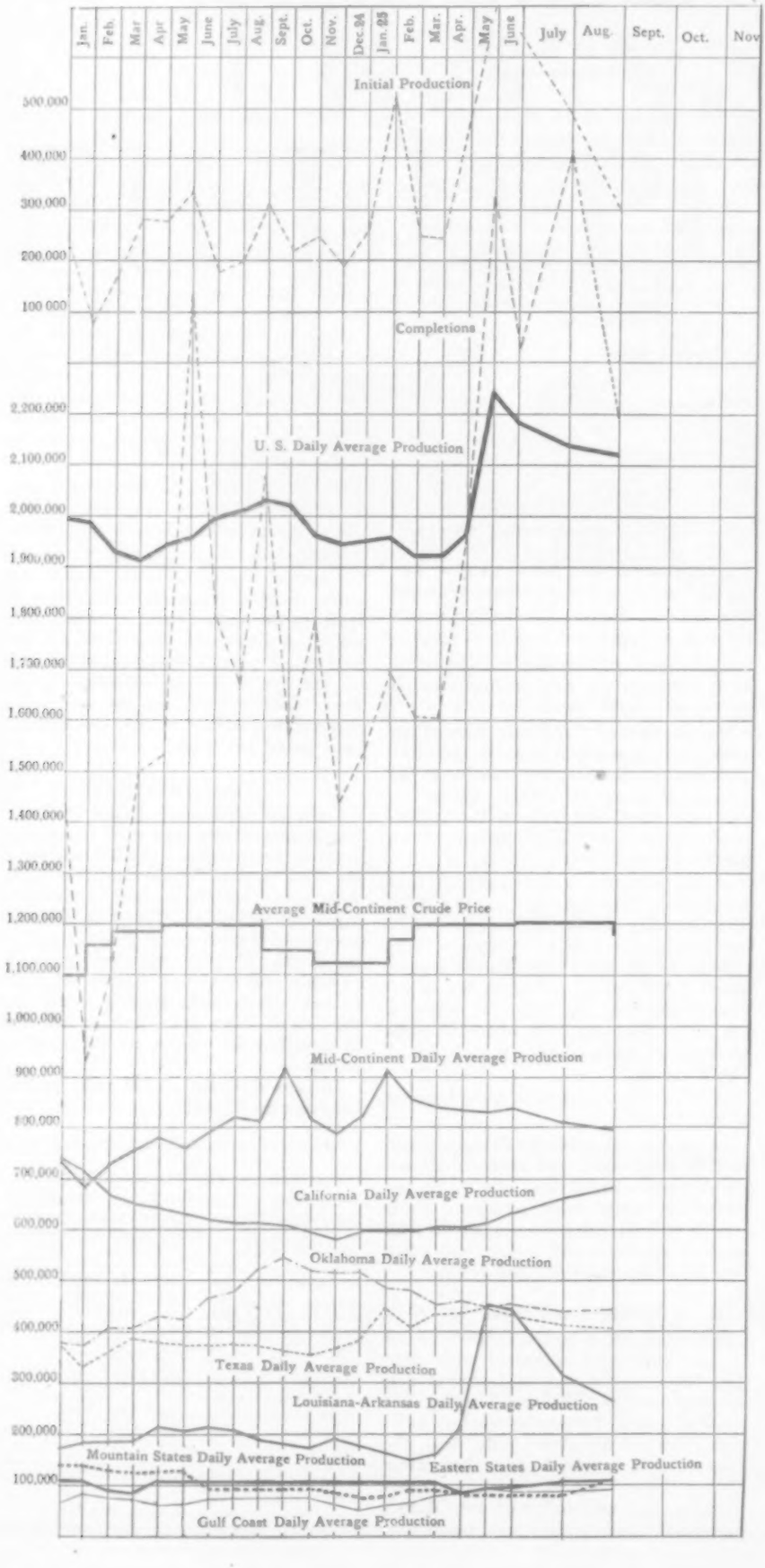
Month—	Completions	Producers	Gas wells	Failures	Initial Prod.
August	2,041	1,405	196	440	316,713
September	1,503	1 029	152	322	226,716
October	1,788	1,149	221	418	255,320
December	1,624	979	269	376	257,745
January, 1925	1,704	1,028	262	414	522,901
February	1,627	1 011	190	426	247,886
March	1,637	1,053	189	395	242,718
April	1,972	1,284	183	505	460,063
May	2,639	1,777	218	644	763,802
June	2,323	1,583	177	563	669,048
July	2,728	1,818	259	651	483,764
August	2,198	1,388	202	608	305,170

UNITED STATES FIELD STATISTICS

Following are the completions, showing producers, gas wells, failures, and initial production of crude by states for the month of August, as compiled by The OIL WEEKLY:

California	119	105	..	14	87,242
Oklahoma	392	218	33	141	54,176
Kansas	146	89	3	54	11,663
Kentucky	167	95	27	45	1,146
Mount'n States	113	99	1	13	24,866
New York	42	42	..	..	353
Ohio	214	120	49	45	1,719
Pennsylvania	186	151	21	14	1,049
Tennesse	...	....	....	....	.....
West Virginia	93	35	40	18	514
Louisiana	29	18	1	10	5,205
Illinois	42	29	4	9	808
Indiana	18	9	..	9	125
Arkansas	151	107	16	28	79,120
Texas	486	271	7	208	37,184
Totals	2189	1388	202	608	305,170

U. S. Production and Field Statistics



for the production drop in the East Central Texas fault region, while new field work is at a standstill, except for the drilling of an occasional stripper location and exploration of the shallow sands overlying the main part of the Corsicana-Powell field. Water encroachment at Wortham is forcing oil production to lower levels each week, while no new production has been added to the field in several months. The old Mexia field is declining at a slower pace, as is the case with Currie and Richland. Wildcatting in East Central Texas is lacking in interest, other than a few scattered tests drilling below the Mexia field in search of oil production in the Edwards limestone formation, which threatened a big field at Kosse, but proved a disappointment.

New oil production added to North Texas fields during August was lacking in flush volume, but the number of new wells was sufficient to boost the output of Electra and K-M-A and Iowa Park fields and miscellaneous fields in Archer, Young and Wilbarger Counties for a slight gain over the previous month. Montague, Baylor and Throckmorton Counties are gradually building up a higher crude yield each month but the present output of these counties has no bearing on the crude market.

The reduction of crude prices during August was not sufficient to reflect on the field work in Texas light oil fields, and several additional cuts will be necessary to cause a serious curtailment of drilling. The break in the crude market has served to lessen the interest in wildcat leasing and drilling.

West Texas

The Big Lake field in West Texas registered a slight gain in production during August as result of field work being maintained at the usual stride, and 9285 barrels of new production was added by six new completions in the proven field. This field accounted for nearly all the new production obtained in the Central West Texas district during August, as Stephens and Eastland Counties fell below their monthly average on new production.

The most important wildcat development in the light oil area in Texas was the discovery of a new oil field in southwest Mitchell County by the Magnolia Petroleum Company making 150 barrels by heads from gray sandy-lime pay at 2860-70 feet. This wildcat producer is approximately 16 miles southwest of the Westbrook field, and the oil tests 28.5 gravity, but the crude affords an excellent gasoline recovery when refined. Magnolia has started an offset to its discovery, and a number of additional tests are are promised for the nearby territory by other lease owners.

There was little change throughout the group of Central and Eastern States. Completions slumped a little, but initial production held at practically the same figures as were shown for July. The total yield also held steady. All the wells completed were small.

Crude Demand Makes Difference In Prices Possible

Large Mid-Continent purchasers have different schedules and hold connections

By J. Kent Ridley
Staff Representative

PRICE reductions during last week have extended lower prices to all sections producing oil, except California, and while there is talk of an immediate curtailment of production through lessening of field work, evidence of this is not seen in the estimates of production reported for the week. While the total for the country is not materially changed, Oklahoma and Kansas record sufficient gains to offset losses in the North Texas fields, so that the Mid-Continent section together shows an increase of approximately 16,000 barrels per day. The total for Texas is up, accounted for by increases in the southern section. Variations in other sections are negligible.

Where Are We?

Meanwhile, the crude market situation is uncertain, particularly in the Mid-Continent, where there is lack of uniformity in the ideas of the bigger purchasers as to what oil is worth. The gasoline market is weak and apparently the bottom has not been reached, reports current being that some of the larger refiners are offering navy gasoline less than 8½ cents per gallon in Group 3, indicating that the mooted reduction of runs has not appreciably curtailed the supply on hand.

Crude price schedules of The Texas Company and the Magnolia Petroleum Company in Oklahoma and Kansas were readjusted Tuesday morning to conform with the light oil buying plan of Prairie, Sinclair and Gulf, thereby restoring a uniform price in the two states. Texas and Magnolia failed to back up on their crude prices in Texas which are more severe and patterned after the original reduction posted by Humble on August 15.

Humble's crude purchases in the Mid-Continent are confined to Texas fields, while the remaining five major companies mentioned above are serving producers in other states besides Texas. When Humble started the Mid-Continent crude prices on the downward trend, a cut was made ranging from 37 cents on the top grade to a minimum of five cents on the low grade. Magnolia followed the lead taken by Humble, and adopted the same price schedule for Texas only on the light grades of oil while a more severe cut was made on heavy crudes. The Texas Company adopted Humble's lower prices several days later and extended the new buying plan to all sections of the Mid-Continent. Magnolia came through shortly afterwards with an order applying its low prices to Oklahoma-Kansas fields as well as Texas.

After holding Mid-Continent producers in suspense for 12 days, Prairie came forth with an announcement that all grades of crude must take a price drop of 25 cents effective August 27, with Sinclair and Gulf following in short order with a similar announcement. The failure of Prairie, Sinclair and Gulf to strike as hard a blow to the crude prices as the other three major crude buying agencies disrupted the ranks of the buyers. Since Prairie is the recognized leader in making crude prices in the Mid-Continent, and now confining most of its purchases to Oklahoma and Kansas, The Texas Company and Magnolia evidently deemed it advisable to make use of the Prairie price schedule in the two states.

Unless the three major companies using the lower crude price schedule in Texas revise their buying plan to conform with prices being paid for crude of similar grade and quality in the upper part of the Mid-Continent, a flood of protests will be registered by producers in Texas, even though the difference in price is negligible. Unfortunately for producers in Texas during present market differences, Humble, Texas and Magnolia are the largest crude buyers in the state, while Gulf and Sinclair's purchases are widely scattered and represent a small volume. Prairie has surrendered all of its crude connections in Central West Texas, including its own production, to Humble as per contract made some months ago, whereby Humble delivers a like amount of crude from the Mexia-Corsicana district to Prairie's line.

The uncertainty of the crude market for the time being, with a lessened demand for new connections on the part of both major companies and refiners, is having a tendency to cause producers to stick by present sources of outlet for their product, therefore the companies using the low crude prices will not suffer material losses in crude.

More Cuts Probable

Since six of the major companies in the Mid-Continent are equally divided on their high gravity crude prices, it is not unlikely that another price cut will be forthcoming on short notice as means to bring about a uniform price schedule, while the weakened condition of the gasoline price structure has paved the way for one or more crude price cuts.

The posting of a third cut on Pennsylvania and other Eastern crude prices within as many weeks during August forecasts additional price cuts for the Mid-Continent, since the latter oil district usually enjoys the same price trend as that maintained in the East.

Absence of any appreciable volume of flush production in the Mid-Continent, or threatened untested territory, are contributing factors in preventing a demoralized condition developing in the crude market while lower prices are threatening. The fact that an overproduction of gasoline developed as the summer motoring season nears its end is more responsible for the reaction of conditions in the oil industry rather than too much crude production, leaves the fate of the market resting on the wiping out of such surplus stocks of gasoline as necessary to put prices in line with crude. Whether restricted refinery operations and curtailed crude production can be enforced to right the situation on short notice, is beyond prediction.

Small Gasoline Orders

The decline of gasoline prices to new low levels over the past week has stirred up some interest in buying by domestic jobbers, although their purchases are mostly in small quantities, since prices have gone lower after each purchase. The bottom price for gasoline is apparently not yet in sight, even though United States motor grade specification gasoline is available at 8½ cents per gallon in some sections of the Mid-Continent. The break in gasoline prices has been equivalent to a number of price cuts on light oils, with the result that refiners have absorbed a great loss on the manufactured product rather than to stock up on a declining market, with chances of having to unload later on at even lower prices. The first indication of the bottom having been reached on gasoline prices will lead up to a buying flurry, and large quantities of the product will be contracted for by brokers to sell against a rising market, while at the same time underselling the current quotation of the refiners.

With fuel oil, kerosene and other burning oils, price reductions have been negligible since the introduction of lower crude quotations. However, fuel oil in Group 3 territory softened a trifle during the past week. North Texas refiners report very little burning oil in storage, and prices on fuel

(Continued on page 61)

Geophysical Methods to Have Part In Future Supply

Gulf Coast fields to be of great consequence in meeting demand. An interview with

Alexander Deussen

AFTER following closely for more than a year the results of experimental work of the geophysical instruments in locating salt domes in the Gulf Coast territory, Alexander Deussen, recognized authority on geological conditions in the Gulf Coast, has consented to express his opinion concerning the practical value of such instruments in locating structures which are known to indicate the presence of oil pools.

In the opinion of Mr. Deussen, the experimental days of the torsion balance and the seismograph are past, it now being a proven fact that these instruments have successfully located salt domes in various sections of the coastal territory. It is his belief that the work of the seismograph is being done with greater success than that of the torsion balance, and that, although both of the instruments have served to locate salt domes in the Texas Gulf Coast, the former machine will, in many instances, detect the presence of a dome over which it is placed for testing the structure.

"There is no question as to whether geophysical instruments will aid in making possible a greater supply of oil from the coastal area in future years," Mr. Deussen pointed out, in commenting on the past work of the machines there.

"Although the seismograph has failed to locate as many salt domes to date as I believed would be found by its use, it has proven as effective in its work as I had anticipated 18 months ago when the instrument was introduced into this section of the country."

Development of Domes

In discussing the results growing out of the finding of many domes in this region in past years, Mr. Deussen stated it was his belief that the salt domes of the Gulf Coast would be of great consequence in the future in their delivery of oil supply. He refuted the argument offered by many in their condemnation of salt domes in the Gulf Coast, which had been discovered several years, and yet had yielded no oil.

"Much time is required for the development of these domes," he stated, referring to many of the present producnized, which had formerly been located, ing fields of the Gulf Coast, which for years were recognized salt domes but failed to show production.

"With the discovery of oil in the Spindletop field in 1902, there were 18 other domes in the coastal region recog-

ALEXANDER DEUSSEN

Vice president of the Marland Oil Company of Texas and widely known as an authority on Gulf Coast geology. Mr. Deussen makes his headquarters at Houston

but had been considered of no value to the oil man. Among these domes and the domes discovered shortly following have developed the Liberty, West Columbia, Hull, Spur Lake, Orange and High Island fields. Most of these fields it took 15 or more years to develop by continued drilling. The salt domes being located today by the modern geophysical methods are identical with just such domes indicating oil in these fields mentioned, and it is only logical that such a period of time will be necessary for these domes to yield oil," Mr. Deussen explained.

"I do not believe that the salt domes of the Texas and Louisiana Gulf Coast offer the greatest possibility for a future oil supply as compared with all the other possible sources in the United States, but they do offer one of the greatest possibilities," he stated in question to the comparative value of the domes. "At present, however, the domes of this section are one of the leading factors concerning future oil supply from this country, and are causing considerable attraction throughout the country. The fact that no production has been obtained from the domes located by the geophysical methods has had little tendency to weaken the hopes of companies in general, which are working in an effort to get production from these domes."

Deeper Sands

In answer to the question concerning the development of deeper sands in the coastal territory, Mr. Deussen asserted that the work of developing these sands had come up to his expectations. Technical men in the oil industry generally do not expect an increase in the gravity of the oil as deeper sands are exploited in this territory, he stated, explaining that the gravity is more likely to drop, considering the lack of proper oxidation at the lower depths.

In discussing the value of geophysical instruments to the oil industry, the American Petroleum Institute, in its recently published book on American Petroleum Supply and Demand, Mr. Deussen being a member of the committee compiling the report from Texas, Arkansas, Louisiana and Mississippi, commented favorably on the work of these methods of determining structures and locating salt domes.

"While all the methods discussed have to do with the finding of underground structures rather than directly with oil, yet the relationship of subsurface structure and oil is so close that the possibilities for finding production are much enhanced if the structure is known. Nearly all oil fields, particularly the larger pools, are associated with underground structures, and the value of determining the extent and location of those structures can not be overestimated when searching for new oil supplies," the report of the committee states, in placing its value on the geophysical methods.

Finding Salt Domes That Formerly Took Years of Drilling

By Roy Wallace Davis

Staff Representative

Houston, Texas.—In discussing the future possibilities of an adequate supply of oil in this country from its own field resources, F. Julius Fohs, chairman of the Petroleum Division of the American Institute of Mining and Metallurgical Engineers, gave as his opinion to the Institute of Politics, in session recently at Williamstown, Massachusetts, the theory that the salt domes of the Gulf Coast region offered the only United States possibility of great significance at the present time.

Although the United States saw the peak of production of crude oils in 1924, there is a fair possibility of another such peak in 1928, provided the numerous salt domes lining the Texas and Louisiana Gulf Coast, which are continually being located by modern geological methods, prove the production anticipated, according to the beliefs of Mr. Fohs. Many good pools have been discovered around the early located domes of this region, and in the light of such discoveries an equal or better production is expected from domes recently brought to light, he intimated.

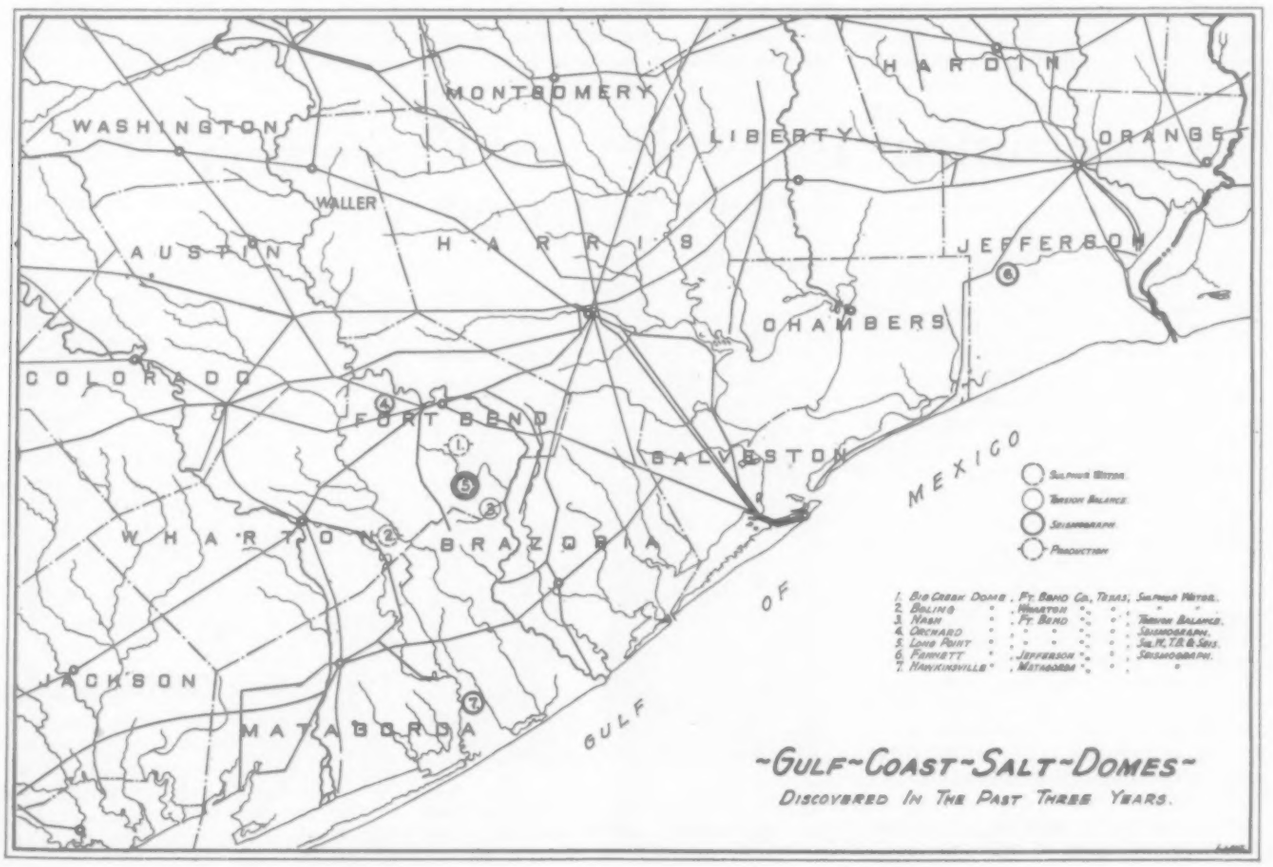
Since the opening of the Spindle Top field in the Texas Gulf Coast in 1901, at which time the saline bed was first recognized as practically a sure indication of the presence of an oil pool, these domes have maintained a place as one of the central factors of interest to the prospector in quest of new pools. Not until the past few years, however, has the salt domes stood out as such an attraction as they hold at present among the leading companies operating in the Gulf Coast territory.

Geophysical Methods

The recent importance suddenly attached to the future of salt domes has come about from the fact that within the past 18 months new methods of locating the domes have strongly augmented the possibilities of the past of their serving as a good source of oil discovery. Since the salt domes have brought about the possibilities of the uncovering of new pools their value to the oil industry is greatly enhanced with new methods of bringing about their discovery, and thus the worth formerly attached to the discovery of the saline domes might now be likely applied to the new methods of discovering the domes in that they work hand in hand for the actual finding of oil reserves.

All in all the coming of recent geophysical methods of citing salt domes has practically brought about a reawakening in the industry. The mere fact that every large company in the Texas Gulf Coast is at present either using the seismograph or torsion balance, or both, or is making preparations for using them, may be considered proof enough of such an awakening. Such methods of discovery have whetted competition in the rush for new findings. With such feasible means of discovering domes has developed the desire of companies to test sections believed to be the location of pools.

Of the known salt domes in the Gulf Coast region, numbering something like 50, of which some 28 or 30 are in Texas, there are seven outstanding ones, all of which have been discovered within the past three years, claiming more significance with companies operating in this



territory. Four of these seven domes were located by means of geophysical methods introduced in the section in the latter part of the winter of 1924.

It is around these seven domes that the bulk of Gulf Coast wildcatting is at present going on. It is also around these seven domes that a great part of the interest of some of the largest companies operating in the coastal region is centered, and that, acording to Mr. Fohs' opinion the possibility of much of the country's future oil supply lies.

The map outlines the locations of these seven domes, with the county in which they are located, and gives the method followed in discovering the domes. Only two of these domes, the Big Creek and Boling dome have actually produced oil, although oil shows have been found in practically all of the others.

Fort Bend County

The Gulf Production Company and Snowden-McSweeney Company combined were the discoverers of the Big Creek dome in Fort Bend County, when, working from indications of sulphur water, the Davis No. 1 of these two companies struck the salt at a depth of 780 feet, May 3, 1922. The well was immediately plugged back to 580 feet, and made a 100 barrel producer. The Wheat No. 3 test of these companies, following the discovery of the dome, drilled offside of the production, and went 3864 feet for a failure.

The Boling dome in Fort Bend County was located from sulphur water seepage by the Gulf Production Company at 442 feet August 31, 1923, after making location for the test near the sulphur seepage June 8, for the Bay No. 1. The Smith & Gale Company completed a small cap rock producer at this dome later in July, 1925, for an initial production of 64 barrels at 464 feet. The well weakened fast, and settled to a daily production of around 25 barrels on the pump.

Among the most interesting saline beds in the Gulf Coast is the Nash dome, in Fort Bend County, the first dome to be discovered in the coastal region by geophysical methods. This dome was loacted by the Rycade Oil Corporation July 11, 1924, with the aid of the torsion balance. The Wisdom No. 1 test, operated by the Rycade, struck the salt at 624 feet.

Probably more drilling has been done around the Nash dome recently than around any other dome in the Gulf Coast, the Rycade Oil Corporation having operated 11 tests there during the past two years. Two shows of oil were found and many shows of sulphur. The Fritz Meier No. 2 of the Rycade cored an oil sand early in August of this year at slightly below 1320 feet, but failed with the appearance of salt water when tested. Following the location by the torsion balance, Nash Nos. 1 and 2 drilled, missing the edge of the salt by a few feet. It was after these failures to prove the value of the torsion balance location that the Wisdom No. 1 was spudded in, and found the dome.

The Rycade Oil Corporation is at present drilling three tests near the dome. The Nash No. 5 spudde in during the past week, the Julius Meier No. 2 is drilling at around 1000 feet in sand, and the Wisdom No. 2 is now below the 2000-foot mark in shale.

Orchard Dome

The first salt dome located in the Gulf Coast by the seismograph was the Orchard dome, in Fort Bend County, which was discovered by the Gulf Production Company's Moore No. 1, December 21, 1924. Gyp was encountered in this test at a depth of 375 feet. Drilling has been active around this dome since its discovery, and the Gulf Production Company is now drilling the Moore No. 5 test, having spudded in about two weeks ago.

The Long Point dome, in Fort Bend County, was located by means of both the torsion balance and the seismograph, each instrument indicating a saline bed. Geophysical tests were made on the strength of sulphur spring seepage, thus checking the presence of the dome by practically every possible method. The Pathfinder Oil Company struck gyp formation January 7, 1925, in the J. H. P. Davis test at 860 feet, shortly preceding the transfer of this company's holdings to the Gulf Production Company.

The seismograph was responsible for the finding of the Fannette dome, in Jefferson County, when the Gulf Production Company drilled the Thomas No. 1 into gypsum formation at a depth of 921 feet following the indications of the instrument that a salt dome was present. The Thomas No. 1 got a show of sulphur near the depth of the gyp, and later the Thomas No. 2 cored an oil sand at 1012 feet, following the abandoning of the No. 1 test.

The most recent salt dome discovered in the Gulf Coast is the Hawkinsville dome in Matagorda County, which was located by the Gulf Production Company's use of the seismograph. This dome was struck by the Gulf's Craig No. 1 July 20, when cap rock was encountered at slightly below 200 feet. The test was abandoned, and the Craig No. 2 spudded in a short distance away, near the edge of the dome. The Craig No. 2 is now drilling below 1900 feet in gumbo. This test struck gyp at 286 feet.

Government Issues Revised Figures on 1924 Oil Production

Washington, D. C.—Production of crude petroleum in the United States in 1924 amounted to 713,940,000 barrels, with a value at the wells of $1,022,683,000, according to revised figures just issued by the Bureau of Mines. This was a decrease of 18,467,000 barrels from the 1923 output, but the value of the 1924 production was $44,253,000, the average value per barrel being $1.43 in 1924, against $1.34 in the preceding year.

The heaviest output in 1924, as in 1923, was from the Mid-Continent field, which produced a total of 375,479,000 barrels, an increase of 27,019,000 barrels over 1923, being the only field to show an increase. California led all other states in production, with 228,933,000 barrels, a decrease of 33,943,000 barrels from 1923; while Oklahoma was second with 173,538,000 barrels, an increase of 12,609,000 barrels, and Texas was third, with 134,522,000 barrels, an increase of 3,499,000 barrels over 1923.

On December 31, 1924, there were 299,100 producing wells in the country, an increase of 9000 over 1923. The average production of oil per well per day at the end of the year was 6.2 barrels, as compared with 6.6 barrels at the close of 1923. Pennsylvania led in the number of wells, with 74,350; Oklahoma being second with 60,500; Ohio third with 38,900, and Texas fourth with 20,350.

Imports of crude petroleum in 1924 totaled 77,775,000 barrels, a decrease of 4,240,000 barrels as compared with 1923, Mexico furnishing 73,979,000 barrels. Exports during the year were 17,973,000 barrels, an increase of 588,000 barrels over 1923, of which 10,992,000 barrels went to Canada.

Stocks of crude petroleum at the end of the year aggregated 400,738,000 barrels, an increase of 26,226,000 barrels over the close of 1923. The indicated domestic consumption was 747,516,000 barrels, an increase of 32,654,000 barrels over the previous year.

The world production of petroleum last year was 1,012,927,000 barrels, according to figures compiled by the bureau, of which the United States produced 70.5 per cent, and Mexico, with 139,497,000 barrels, 13.8 per cent. Figures compiled by the bureau, covering the period from 1857 to 1924, inclusive, show production in this country during that time to have been 7,905,929,000 barrels, or 63.7 per cent of the world production of 12,401,389,000 barrels. For the 78 year period covered by the bureau's study, Russian production comes second, with 2,053,140,000 barrels, or 16.6 per cent of the total, while Mexico, with 1,201,281,000 barrels, or 9.7 per cent of the total, is third. The Russian production in 1924 was 45,312,000 barrels, or 4.5 per cent of the world production for that year.

Two Tests on San Carlos Dome

San Carlos, Vera Cruz.—The Mexican Seaboard has just completed two rigs for additional operations on the San Carlos salt dome structure. On similar structure to the west, the Mexican Eagle is obtaining 1200 barrels of 28 gravity crude daily.

Stub derrick above Electra oil mine showing excavations on left and cars on right used for hoisting purposes

Electra Field Has Oil Mine

North Texas Operators trying method similar to that used for securing water supply

By H. H. King
Staff Representative

Wichita Falls, Texas.—An experimental oil mine being sunk jointly by the Panhandle Refining Company and M. E. Carter, mining and civil engineer of Burkburnett, in an established shallow oil pool on the G. Jennings land in the Electra field, is attracting unusual interest since its success in negotiating 23 feet of richly saturated oil sand at a total depth of 99 feet without a mishap. The mine in its present incomplete stage affords a commercial oil well for its owners, with a potential daily production running as high as 40 barrels of 40-gravity oil, although the searing of the oil sand formation with powder has cut the daily production to less than one-fourth.

Method Same as Used for Water

The specifications of the mine and removal of the oil from the sand pay will be patterned after the method successfully used in recent years by Carter in obtaining water in large quantities at shallow depths for oil producers and natural gasoline plant owners in the Burkburnett field. However, the "water mine method" will be supplemented by the use of steam in forcing the oil sand to give up its maximum yield of crude. Carter's water system has been put in by several of the major companies at Burkburnett, and fresh water production running as high as 20,000 barrels daily has been obtained at about 30 feet below the surface.

The penetration of the oil and gas-bearing sand at Electra with pick and shovel by a mining crew did not prove as hazardous as digging for water near natural gasoline plants at Burkburnett, according to Carter, although extreme precaution was taken to prevent the firing of the gas or asphyxiation of the workmen in the bottom of the shaft. Escaping gas and gasoline from feed lines leading to and from natural gasoline plants at Burkburnett were pronounced as being more dangerous by Carter when digging nearby, since the gas and gasoline seep through porous formations in the earth and settle in pockets where least expected.

At the right is M. E. Carter who has charge of the mining operation showing oil sand lumps removed from the hole to H. B. Fuqua, left, geologist for the Gulf Production Company

Layout of Mine

The Jennings farm mine consists of a perpendicular round shaft with a diameter of nine feet and six inches, and a short stub derrick overlying the shaft supports the pulleys for two lifelines, and a small cable for hoisting workmen and earth. The shaft now has a total depth of 99 feet, with digging continuing in water-bearing sand directly at the base of the oil pay. Other than 24 feet of surface curbing, consisting of two-by-fours, the shaft is uncased to the bottom, and, fortunately, no water was encountered above the oil sand horizon, otherwise more curbing would have been necessary. The walls of the shaft are sufficiently hard to stand without casing above the oil sand.

Makeshift Equipment Used

About 30 days of daytime digging was required to drive the shaft to its present depth, with two men working in the hole. Since the project was started as an experimental proposition, only makeshift equipment has been put to use in sinking the shaft, and a time-worn Ford truck is substituting as a hoisting machine in bringing the mined

Fresh air for bottom of shaft supplied by blower at rate of 1,200,000 cubic feet every 8 hours

earth to the surface. A wooden barrel cut in half, with a mining bucket trip frame, serves as a lift for the excavations, while a small cable line passing over a pulley raises the bucket by driving the truck straight away from the stub derrick. A workman grabs the bucket when brought to the surface with a load, dumping same into a waiting wheelbarrow for deposit on the ground away from the scene of operations. Including the two men in the shaft, truck driver and two men handling the earth when hoisted to the surface, a crew of five is necessary to keep the mining operation running at top speed.

The hardness of the formations, including the oil sand, encountered in sinking the shaft, has made it necessary to use explosives in loosening the earth, and flameless powder is used in extra heavy shots. As a safety measure, the miners bore a number of small holes five feet ahead of their pick-and-shovel digging in order to spot any existing gas pockets, and after loosening the earth with explosives, four feet of shaft are sunk when holes are bored five feet further down. This method is carried out all the way down.

Sand Is Shot

The 23 feet of oil and gas-bearing sand was shot with flameless powder, owing to the hard nature of the formation, and extra heavy shots were placed along the edge of the shaft in order to pack the wall. This powder has a tendency to sear the oil sand, according to Carter, and restrains the flow, or sweating of the oil, thereby enabling the miners to dig through the oil sand horizon without having to case the walls. From 70 to 80 buckets of earth are obtained after each shot, with the help of pick and shovel.

The mined oil sand is brought to the surface in large lumps, and is apparently void of oil until exposed to the air. The color of the sand changes from a dark gray to dark brown shortly after being exposed, and in a few hours becomes black, with the oil slowly evaporating. This oil sand is proving to be a great attraction to geologists and oil men visiting the mine, and one unusually large lump of richly saturated sand measuring about three feet in length and 22 inches across, with an estimated weight of more than 400 pounds, is being displayed in the offices of Roy B. Jones, president of the Panhandle Refining Company, at Wichita Falls.

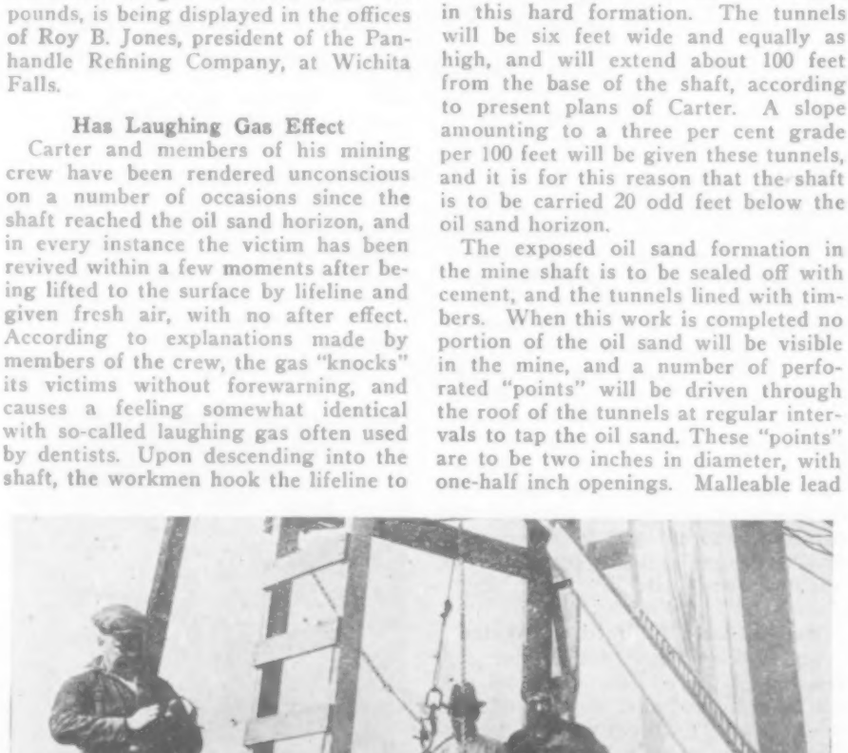
Has Laughing Gas Effect

Carter and members of his mining crew have been rendered unconscious on a number of occasions since the shaft reached the oil sand horizon, and in every instance the victim has been revived within a few moments after being lifted to the surface by lifeline and given fresh air, with no after effect. According to explanations made by members of the crew, the gas "knocks" its victims without forewarning, and causes a feeling somewhat identical with so-called laughing gas often used by dentists. Upon descending into the shaft, the workmen hook the lifeline to their belts, and in the event they are gassed, the lifeline draws tight above, serving as a signal to men at the mouth of the shaft to pull out the victim. The motive power for operating the lifelines is derived from two small coupes, with life line attached to rear axle. The cars are driven straight away from the derrick to lift the bodies, as in the case with lifting the earth with the truck.

The mine shaft is at present supplied with fresh air and freed of its gas content to a large extent by the use of a small blower operated by a one-lung gasoline motor. This blower hurls about 1,200,000 cubic feet of fresh air into the mouth of the shaft via a galvanized pipe every eight hours, and has proved ample for the job, except when the men remain underground more than the customary hour or two shift.

The shaft was dug near the center of a lease producing from shallow pay as well as the 800-foot oil sand, and the logs of these tests were used in selecting the location for the project. Guided by these logs, the owners of the mine are expecting to encounter a hard formation before reaching the 120-foot level. This will be the total depth of the mine, and plans are to drive a tunnel to the east and south in this hard formation. The tunnels will be six feet wide and equally as high, and will extend about 100 feet from the base of the shaft, according to present plans of Carter. A slope amounting to a three per cent grade per 100 feet will be given these tunnels, and it is for this reason that the shaft is to be carried 20 odd feet below the oil sand horizon.

The exposed oil sand formation in the mine shaft is to be sealed off with cement, and the tunnels lined with timbers. When this work is completed no portion of the oil sand will be visible in the mine, and a number of perforated "points" will be driven through the roof of the tunnels at regular intervals to tap the oil sand. These "points" are to be two inches in diameter, with one-half inch openings. Malleable lead



L. P. (Pink) Hammond, drilling contractor and owner of the adjoining lease makes an inspection trip into the mine. Hip-boots are necessary

Engineers in Field to Handle Tax Problems

Direct contact with men qualified for work means large saving and better understanding

By Roy Wallace Davis
Staff Representative

Houston, Tex.—Following the long demand of the oil producer and tax payer of various other industries for the decentralization of government departments and the continued requests of tax payers for a more direct contact with these departments, a new system which has been in the making for several years, has actually materialized.

Effective during the past few weeks, this decentralization, which might be considered of vital aid to oil and gas companies, has been brought about, and the work of placing government representatives in the center of oil producing territories for the desired direct contact is fast being carried out by the Engineering Division, Bureau of Internal Revenue, Treasury Department, at Washington, D. C.

Men Put in Fields

Under the new action taken by the government department, representatives of this department are being stationed throughout the country in points nearest the center of oil activities, states L. P. Andreson, in charge of the Gulf Coast region. These representatives, who are qualified both as engineers and for the handling of oil and gas matters pertaining to the taxable end of the business, will henceforth have direct contact with oil and gas company heads, and will thus eliminate the former work on the part of such company officials of taking up any possible disagreements over filed reports by mail or by personal trips to Washington.

The government representatives stationed over the various sections of the country are revenue engineers with a thorough understanding of the oil and gas industries from every angle, combined with a knowledge of the workings of the revenue department. Following the decentralization their work in the future will be carried on directly with the companies. Officials or attorneys of the companies will make their claim for depletions in the office of the local representative instead of sending these claims to the department at Washington. The entire arrangements will be handled by the revenue engineer, and final agreement made in order to avoid delay or confusion at the department headquarters.

Such action on the part of the government in sending out revenue engineers means a simplifying of the process required of oil and gas companies, the elimination of trips of company officials to Washington, which, in the past have often grown out of misunderstandings or disagreements, and further means closer relations and better understanding between oil and gas companies and the revenue department.

Prior to the decentralization the department in handling revenue on oil and gas companies, sent out revenue agents, who were not engineers, not familiar with engineering problems, to audit the books of the oil and gas companies. Owing to the unfamiliarity of these agents with the problems of engineering, they were required by orders of earlier years to reject the depletion claims. On the other hand, the representatives sent out now know the engineering end of the industry as well as being qualified to understand the application of the law and the procedure of the department, and are thus equipped to directly pass on the deductions made for depletions, simultaneously with the revenue agents examination of the oil companies' books. Under the present system, then, all the proposed changes may be made with the tax payer's knowledge in a single examination. Further, any protests likely by the oil and gas company heads will be made to the revenue engineer in his office or in the office of the company, and make possible the filing of the depletion report in a final and complete form to the Engineering Division Bureau of Internal Revenue at Washington.

With the decentralization of the departments it is now the hope and the aim of the department to speed up the income tax work through the closer contact with the companies, which will be possible under this scheme of directly dealing with the field men and tax payers.

Location of Engineers

Immediately following the change made by the department in placing the revenue engineers in the various oil centers of the United States, S. M. Greenidge, Head of the Engineering Division of the Bureau of Internal Revenue, Treasury Department, at Washington, made a trip through the western and southern fields for the purpose of studying conditions and selecting points at which to place revenue engineers. To date five locations have been definitely decided on for the stationing of these officials. Dallas will be the headquarters office of Lloyd C. Gibson, revenue engineer in charge of the North Texas section. His office has been established in the Western Indemnity Company Building, at Dallas. L. P. Andresen, who has been placed in charge of the Texas Gulf Coast region, is located in the Standard Printing Building, at Houston. Stanley H. Harrison, who has been assigned to the Shreveport district, has, at present no definite office quarters. A. D. Bell, in charge of the Oklahoma City section, and Joe Devine, in charge of the Tulsa section, will cover work of the department in Oklahoma. As yet no offices of these two representatives have been announced.

Although these five sections are the only ones as yet selected definitely, other centers, including San Francisco, Los Angeles, Denver and Pittsburgh will be named in the near future, with representatives assigned to these points, according to information from the Gulf Coast revenue engineer.

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will be used to caulk up the "points" where they penetrate the roof of the tunnels. Short lengths of "points" will be driven in the oil sand and connected to oil flow lines, while a separate set of "points" will penetrate the full thickness of the oil sand to permit the introduction of steam and use of vacuum.

A regular oil field mud hog pump is to be landed on a staging in the shaft below the oil sand horizon, with steam power supplied by boilers above ground. This pump will be connected by lines with the "points" driven into the oil pay, and will permit a downward pull in withdrawing the oil, with steam forcing the sand to give a maximum yield of crude. According to Carter, it will not be necessary for any workmen to be in the mine during the time it is in operation.

Water sands in the Burkburnett field have been tapped by Carter by the sinking of a shaft and tunnelling under the producing sand for a short distance then driving "points" into the sand via the roof of the tunnel. The water feeds into the tunnel, which is sloped upward away from the shaft. When the water fills the tunnel at the shaft, an air chamber exists in the roof of the tunnel at the far end by reason of the slope being given, and when the fluid level is lowered by pumping this air chamber serves as a vacuum in pulling additional water from the sand above via the flow "points." The same method is to be tried by Carter in his oil mine.

PERSONAL MENTION-MEN YOU KNOW

Joe Thompson, secretary to the president of The Texas Company, Houston, is enjoying a vacation of two weeks at Galveston Beach.

L. E. Delcuze, assistant to the vice president of the Gulf Production Company, office at Houston, is expected to return within the next week from Asheville, N. C., where he has been spending a vacation of one month.

J. P. Jones, member of the accounting department of the Humble Oil & Refining Company, is spending his vacation visiting in the Mexia and Wortham oil fields.

S. M. Greenidge, head of the engineering division, Bureau of Internal Revenue, Washington, D. C., who is making a tour of investigation through the oil territories of the country, spent several days during the past week in Houston. He left late last week for Lake Charles and Shreveport. The chief purpose of Mr. Greenidge's trip is to select points in oil sections, placing revenue engineers who will, in the future, work directly with oil company heads in computing and filing their depletion reports. L. P. Andresen, graduate engineer of Stanford University and for many years connected with the department at Washington, has been appointed for the Gulf Coast territory, and will have offices in Houston.

Miss Martha Whitten, member of the geological department of the Marland Oil Company of Texas, leaves this week for Galveston, where she will spend a vacation of one week.

R. D. Burnham, district sales manager for the Coatesville Boiler Works, with offices at Dallas, was in Houston during the past week calling on the trade. The Coatesville Boiler Works is the manufacturer and distributor of Taylor boilers.

H. J. Larrick has been placed in charge of the Wichita Falls distributing branch of the Star Drilling Machine Company, manufacturers of tractor-mounted star machines, which was established recently at that point. This branch office of the company, the headquarters of which is in Akron, Ohio, will serve the fields of Texas, Louisiana, Arkansas and New Mexico.

Charles Hurd, formerly with the Central Refining Company of Lawrenceville, Ill., has moved to Wichita Falls to become general superintendent of production for the Panhandle Refining Company.

Roy Holloman, petroleum geologist, has announced the opening of his new offices, 230-233 Steel Building, Denver. He will be associated with Dean E. Winchester in his work.

L. P. St. Clair, president of the Independent Oil Producers' Agency and vice president of the Union Oil Company, and Paul N. Boggs, assistant general manager of the same company, returned to Los Angeles this week after a month's tour of inspection of marketing facilities in Northern California and through Washington and Oregon.

Ben M. Bell, who has had charge of the Wichita Falls land office of the Sun Oil Company for a number of years, has resigned to become state manager for the Pandem Oil Corporation of New York. Bell is president of the National Oil Scouts' Association of America.

J. R. (Dick) Dimond, veteran scout for The Texas Company in the East Central Texas fault region, with headquarters at Corsicana for the past several years, has been transferred to Marlin, Texas, and will be succeeded at Corsicana by C. G. Thorn.

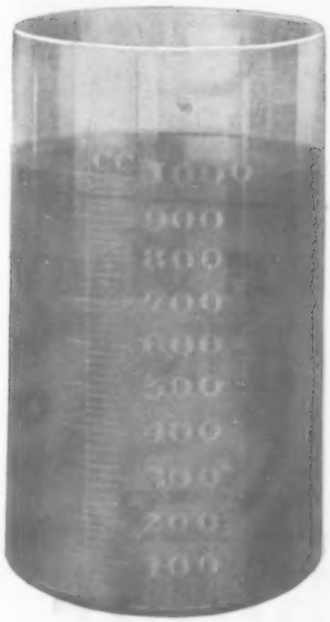
Even fish love a fat man. Here's F. R. (Dock) Oldham, purchasing agent for the Gulf, (right), and Harry Potts of Kerotest Gate Valve fame, (left), with their catch of Robalo from the Jamesi River, Mexico. Decide for yourself whether or not they too, like Dock's well known turkey bagging in Mexico, were staked out for him. We also, won't vouch how recent this happened

Third Gas Sand in New Mexico

Albuquerque, New Mexico.—A third gas producing horizon has been uncovered by the Arkansas Fuel Oil Company's wildcat test on the Wagon Mound structure in Mora County with a reported flow of six million cubic feet at 1800 feet. This well is located in section 11-T19N-R21E, or about eight miles southeast of Wagon Mound. It passed up a flow of 3,000,000 cubic feet of gas at 1140-63 feet, and 26,000,000 cubic feet at 1420-23 feet. This gas production is non-inflammable, and is very poisonous.

The California Company's wildcat test on the South Springs Ranch & Cattle Company land, section 24-T10S-R28E, Chaves County, is preparing to abandon after reaching a depth of 3396 feet without showing oil or gas.

A THOROUGH *Method*



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General view of Rio Bravo's Wortham property. Steel derricks mark Rio Bravo wells

Treating Without Losing Gravity At Wortham

Rio Bravo leaves no stones unturned in getting maximum return from right-away property

By A. R. McTee
Staff Representative

LADY LUCK may not always be with the Rio Bravo Oil Company, but she was on the job at Wortham. Since the beginning of developments in that field late in 1924, the cards seem to have fallen right for Rio Bravo, and now that company's right-of-way lease is one of the best in the field, both from the standpoint of production, appearance, and efficient management.

To begin with, the Rio Bravo, producing subsidiary of the Southern Pacific Lines, was favored by having the Houston and Texas Central Railroad, (Southern Pacific) cut the heart of the Wortham field. Just as soon as the field was discovered and its trend determined, the Rio Bravo started drilling the right-of-way. There was no title trouble or land difficulties, because the railroad owns the land in fee.

The company's affiliation with the railroad proved a life-saver early in the game. When all other operators at Wortham were having to hold back drilling on account of water shortage, the Rio Bravo was hauling tank car loads and going ahead with its wells. It was a simple matter to spot a car of water along the right-of-way and connect it by water line to a drilling well.

In spite of the limited space on the right-of-way lease, nine wells were drilled, and these are making approximately 1000 barrels of oil daily, which is about one twenty-fifth of the entire production of the field. In this connection it should be mentioned that three of the Rio Bravo wells are making a high percentage of water, so that six wells are really responsible for holding up the output of the lease, and viewed in relation to what other wells in the field are making, these six Rio Bravo wells can be called record producers.

Erecting Steel Derricks

There are several features which make the right-of-way lease outstanding: During the past two weeks the company has been changing from wooden to steel derricks, and installing electric pumping outfits on all the wells. When this is completed, the efficient operation of the lease will be increased. Concrete foundations are provided for the steel derricks. This will decrease rod trouble since vibration is cut down when electrical outfits are installed with steel derricks. What little trouble has been experienced with shut-downs ought to be eliminated.

The danger of damage from wind storms is much less with steel derricks than with wooden ones, and the frequent storms that occur in North-Central Texas led the Rio Bravo to decide on this change.

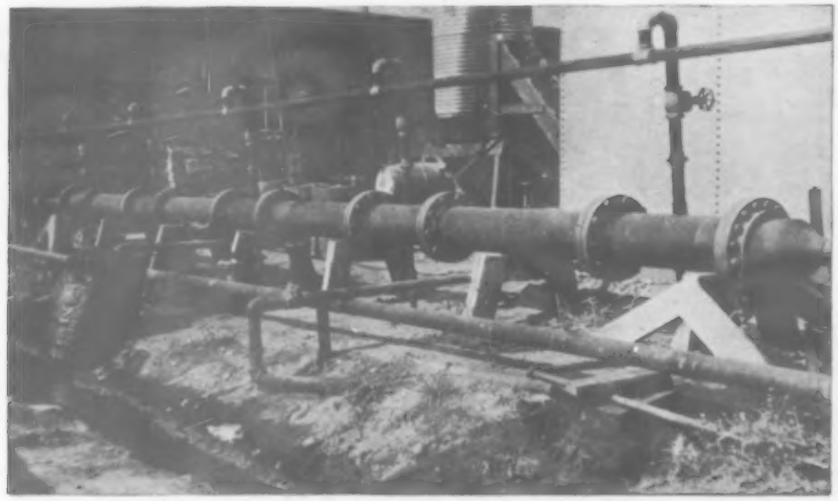
Special importance is attached by Rio Bravo engineers to the way in which wells on the right-of-way lease have been handled in plugging off water. In some wells production has been increased as much as three or four times by a special method of plugging. The general method at Wortham is to use cement, but the Rio Bravo found its own way far more satisfactory.

This method of plugging is as follows: When water is to be plugged off, the well is taken off production and a steel line measurement obtained from the back pressure valve to the casing-head valve. Liner is then pulled and the hole cleaned out. Steel cuttings are packed in the bottom of the hole. A six and five-eighths inch plug is set and compressed and 100 pounds of lead wool is then run in on top of the plug and packed with cable tools. Tubing and rods are then run and the well put on the beam.

Advantage of Water Shut Off

Individual records of wells before and after plugging off water by this method offer interesting studies. For instance, No. 4 averaged 40 barrels daily before plugging. After water was plugged off, the well made 150 barrels daily. Before plugging, No. 5 was averaging 75 barrels. This well gauged 165 barrels of good oil after the water was shut off.

A good deal of interest has been



Heater where oil is treated, showing steam line connections, and bolted construction of the pipe

manifested by the United States Bureau of Mines in Dallas, in this method of plugging, and the Bureau of Mines engineer is making a special study of results achieved on the Rio Bravo lease.

Treating Methods

One well on the lease, No. 3, has the record for having flowed longer than any other well in the field. The well came in on January 30, making nearly 400 barrels of oil. Production immediately increased until the output was above 650 barrels. This held through February and March. By April the yield had dropped to 400 barrels. In May it was down to 350 barrels. June showed an average of 380 barrels, and in July the well was put on the beam. It is now pumping about 200 barrels daily.

Why this well flowed so long has been a matter of much sepculation among engineers in the Wortham field. Nearby producers both on the Rio Bravo lease and on others, were put on the beam several months before No. 3 showed any signs of weakening.

Tank where treating chemical is put into the oil before it goes to the heater

The Rio Bravo Company prides itself on having a system of treating is production whereby there is no lowering in the gravity. Since the adoption of the gravity scale for buying crude throughout North and Central Texas, it has been a matter of dollars and cents to conserve the gravity, and Rio Bravo has been able to hold the gravity on all its Wortham crude, in spite of the fact that all its Wortham production has to be treated.

The system was worked out by a Rio Bravo man and is operated by him. It involves the use of specially constructed heating chamber made by bolting pipe together as shown in the accompanying illustration. Steam coils are contained in the heater and are connected to a steam line coming from the boiler house which is nearby. Steam lines are controlled by valves to enable the operator to cut down or enlarge his supply of steam as needed. At the end of the heating chamber where the oil leaves to go to the settling tank, is a thermometer which gives the temperature of the oil. A valve is also placed on this end of the heater where samples of the oil may be taken.

Oil from all wells on the lease is first run through a big gas separator and then to storage tanks which are connected to the heater. After settling in the storage tanks, the oil is pumped through the chemical tank, shown in the illustration, where it gets its charge of chemical, about one gallon to every 500 barrels of oil. From the chemical tank the crude is pumped into the heater and forced along the steam coils where it is heated.

The temperature is never allowed to run above 135 degrees, and is uaually kept around 130. Sometimes the oil is cut worse than others and then the tempertature as well as the amount of chemical used must be increased slightly.

By taking a sample of the oil just as it leaves the heater, the operator knows whether or not he is getting proper results from treating, and if more steam or chemical is necessary it can be added at once.

From the heater the treated oil goes into a 1500 barrel settling tank. Here whatever foreign matter freed by heating settles out and goes to the bottom of the tank. Water is bled off as it settles out of the oil and the pipe line oil flows out into other storage through a flow pipe connected to the tank about three feet below the top.

The great advantage of this treating system lies in the fact that it is enclosed. The oil is never exposed to the atmosphere and is flowing through practically air-tight containers from the time it leaves the well until it goes into the last storage tank.

This results in no loss of gravity as well as prevents any waste through evaporation.

The 1500 barrel settling tank is connected to a steam line so the temperature of the oil may be kept up if necessary. Once in a while there is a good deal of b.s. in the oil even after it has gone through the treater. When this happens steam is shot into the settling tank and

1500-barrel settling tank showing outlet pipe for the good oil as it rises to the top of the tank

the oil held until the Tret-O-Lite has had ample time to do its work. However, instances where this has been necessary have been rare.

Use Gas For Fuel

Residue gas is used to fire the boilers in treating the oil. Each well on the lease makes a small amount of gas and this is taken from the separator and sold to the Humble Oil & Refining Company. Enough residue gas to provide fuel needs for the lease is returned from the Humble's gasoline plant.

Capacity of this treating system as it stands is about 2500 barrels per day, but with a few changes, the capacity could be increased. Installations similar to the one on the Rio Bravo lease could be made for most any size production.

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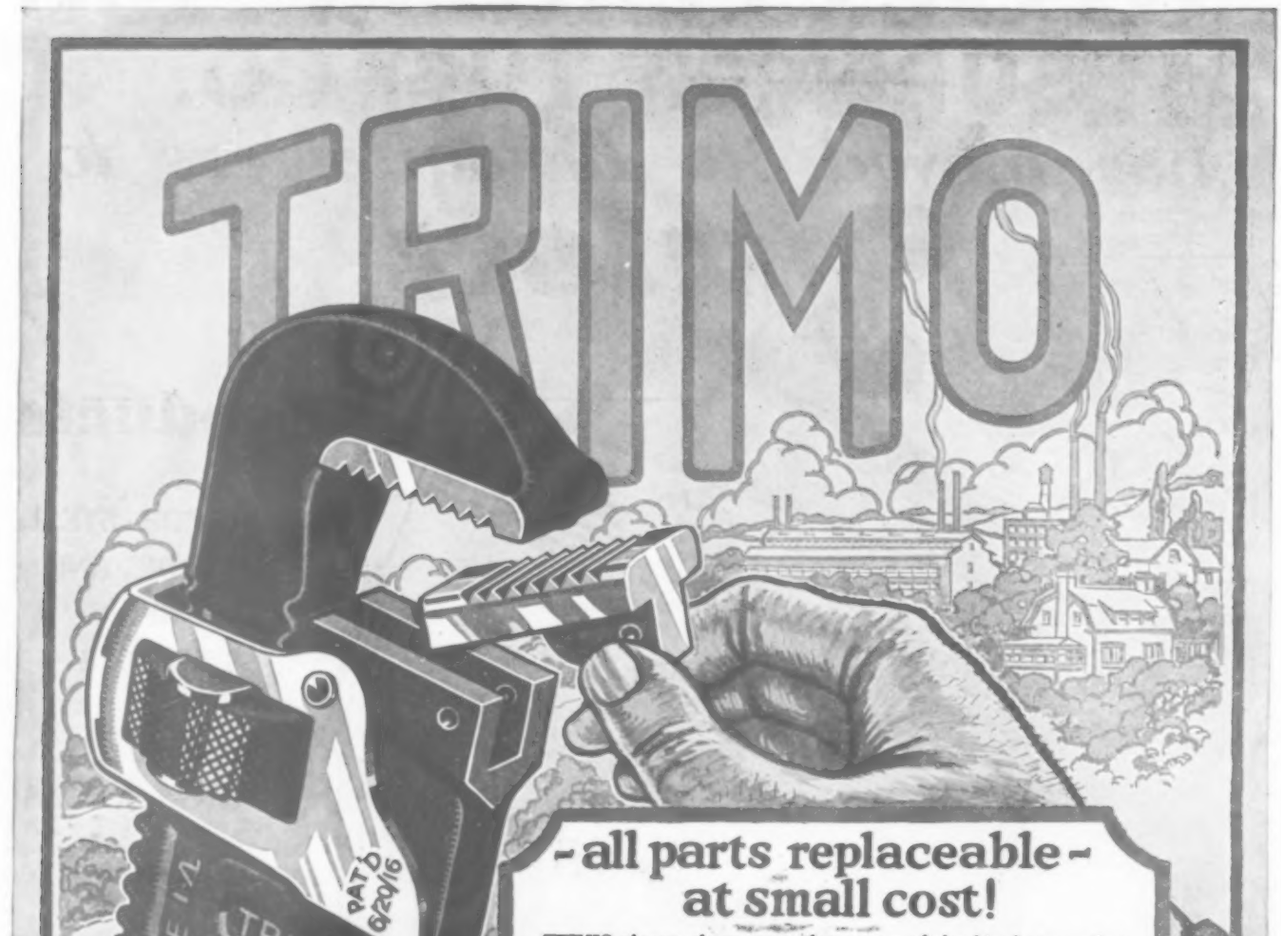
Stocks in Principal Oil Fields



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Raymond E. Hill

Engineers Cover Important Ground At Casper Meeting

By Grady Triplett,
Staff Representative

Casper, Wyoming. — From a thorough study of the Salt Creek oil field through an informal smoker, a visit to Teapot Dome and finally a journey over the historic Oregon trail, members of the Petroleum Division of the American Institute of Mining and Metallurgical Engineers made a valuable session of their conference here two days of last week.

The Casper meeting was incident to the meeting of the whole institute in Salt Lake this week. August 28 was given over to technical sessions, with an inspection of the refining plants of the Midwest Refining Company and the Standard Oil Company of Indiana. Saturday was given over to an automobile tour of the Teapot Dome and Salt Creek fields. Sunday the delegates left Casper by automobile for Rawlins, stopping at noon at Independence Rock on the Oregon trail, where they had lunch and listened to a lecture on the area by R. S. Ellison, vice president of the Midwest Company.

Technical Sessions

The technical sessions Friday were devoted to a symposium of the Salt Creek field. The programs were built around a paper prepared by E. L. Estabrook and C. M. Rader, both of the Midwest Company. This paper had been printed by the institute and was given in extracts by Mr. Estabrook, the discussion following.

Pertinent to this discussion were the remarks of Dr. George Otis Smith, director of the United States Geological Survey, who said:

"In their review of production the authors show a credit balance of about 90 cents a barrel for the grand total of 138,000,000 barrels up to the present year—a field credit divided, more or less equitably let us hope between profits to the land owners and operators and the state and federal taxes.

"The question that occurs to me is—how many oil fields can strike so favorable a balance just after the peak production?

"And speaking of peak production, Salt Creek operators have a creditable record in their efforts to hold in check over-production and over-developments. Possibly here is part of the explanation of that field balance of $125,000,000, one reason why this is not one of the many oil pools whose financial history is written in red ink.

"Incidentally I may add the comment that I am gratified to note that the 1922 committee appointed to protect the common interest of the field was named the conservation committee. I believe in just that brand of conservation that serves practical ends and the interests of all.

"And when I see the stand taken by Mr. Estabrook and his associates on the subject of utilization of gas energy and know as I do of the co-operative studies being made by the government representatives and operating officials, I rejoice to hear the practical issues so explicitly stated, as the problem is to prevent any gas from reaching the surface without bringing with it a full load of oil. That is conservation in theory and practice boiled down to a few words that carry a full load of promise of future productivity for the Salt creek dome and of future profits for Salt Creek operators. I can pledge to the Salt Creek operators the full co-operation of the Federal Department of the Interior in carrying out a conservation program of that type."

Other Discussions

Mr. Smith further commented on the value of production in Salt Creek when translated into its ability to create energy.

Other comment on the Salt Creek field was made by W. H. Geis of the Consolidated Royalty Oil Company; Lee M. Miller of the Bureau of Mines; A. W. Peake of the Midwest Refining Company; D. B. Dow of the Bureau of Mines, and C. E. Reistle of the Bureau of Mines.

After registration Friday morning the session was opened by an address of welcome by B. B. Brooks, former governor of Wyoming, who is now at the head of the Consolidated Royalty Oil Company and president of the Rocky Mountain Oil and Gas Association.

The response was by F. Julius Fohs, Chairman of Petroleum Division of the Institute. Mr. Fohs outlined the purpose of the Petroleum Division as well as the purpose of meetings such as the one at Casper, saying:

"We are striving to bring field superintendents and foremen into our sessions, and have them take part in the discussions. We want them to realize that we engineers are striving to establish the rule of reason for the rule of thumb in oil field practices.

"As gas energy is expended in oil fields, more and more we must resort to finer practices to get oil. It is only by engineers and practical men working in harmony that such practices may be introduced."

Bain Talks

Dr. H. Foster Bain, now secretary of the American Institute of Mining and Metallurgical Engineers, was introduced. In his remarks he stressed the value of meetings of the Casper type for allowing men of the industry to become acquainted.

The Salt Creek pipe line system was outlined in a paper prepared by L. L. Langworthy of the Midwest Company. The history of pipe line construction and the methods used in laying lines for the Wyoming climate were given in detail. This paper is to be printed later by the institute.

Methods of cementing wells at Salt Creek were presented in a paper by R. O. Armstrong and C. M. Rader.

Oil field waters and how they are tested and the use made by the knowledges of these waters was explained by S. W. Young of the Midwest Company. This paper has not been finished and will be completed by Mr. Young and Mr. Estabrook.

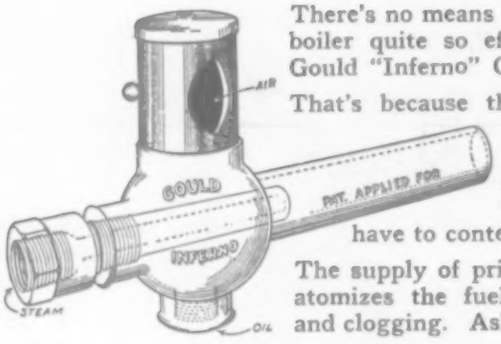
History of Reserves

The history of the Naval Oil Reserves was given by Max W. Ball of Denver, president Algo Oil Company. While his paper was historical it did bring out some interesting comment, especially that of George Otis Smith, director of the Geological Survey. The comment on the paper tended to show that the Naval Reserves were set apart for the purpose of keeping a reserve underground, something that became impossible, due to private ownerships of adjoining leases in some instances and lack of thorough knowledge of underground conditions in others.

The Elk Hills Reserve, for instance, was hampered by concerns holding adjoining leases. On this reserve Director Smith said, "The companies holding adjoining acreage, the Pacific and the Standard Companies, especially, were willing to exchange their holdings for other holdings leaving a reserve not being drained. But such an exchange was never accomplished. Some officials of the Federal Government seemed inclined to want to acquire adjoining Elk Hills acreage without giving holdings of corresponding value in return."

In regard to the Teapot Dome reserve now under lease to the Mammoth

Pep Up Your Lazy Boilers With Gould "Inferno" Oil Burners



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Oil Company of the Sinclair interests, Director Smith said he had not given up hope for it, despite the poor showing to date. The Teapot Dome reserve, which adjoins Salt Creek, now has around 1800 barrels daily output from around 80 wells.

In the absence of the author, J. A. Holmes, A. W. Peake of the Midwest Company gave the outstanding events in the shutting in of the Rangeley gas well in Colorado.

Professor Lester C. Uren of the University of Colorado gave in brief the points of his paper, "Problems of Pumping Deep Wells for Petroleum." This paper had been printed and was available for the meeting.

Core Drilling

Core drilling methods for structure in Wyoming was outlined by John Wilson of the Midwest Company. He is joint author with J. G. Bertram, geologist from the same company.

Wildcat drilling in Wyoming was explained by E. G. Sinclair of the Midwest Company. His remarks show the gas engine for power to be the chief advance in Wyoming wildcat drilling in the past two years.

C. V. Millikan of the Amerada Petroleum Corporation of Tulsa, gave extracts of his paper, "Use of Gas Meters for Determination of Pay Strata Oil Sands." This paper had been printed previously and was read from months back before the Mid-Continent section of the Institute at Tulsa.

Another paper available at Casper, after being read previously before the Mid-Continent section was "Cleaning Oil Wells by Compressed Air," by A. A. Beard and R. A. Bonnell of the Tidal Oil Company.

The smoker Friday night at the Henning Hotel was the occasion for musical numbers and some impromptu talks. W. H. Geis of the Consolidated Royalty Oil Company presided. The only technical subject for the evening was an explanation of the methods for drilling and pumping wells by electricity in the Salt Creek field. This was given by A. W. Peake, general field superintendent of the Midwest Company.

A. J. Hazlett, editor of the Inland Oil Index, was pressed in to the program giving a humorous talk on "Texas Hogs". His description of the methods by which Texas razorbacks get acorns from trees proved a laughmaking event.

The two chief points of interest on the field trip Saturday were Teapot Dome and the Electric power plant of the Midwest Company at Salt Creek.

At Teapot Dome C. A. Fisher and Max B. Bell gave brief talks of the history and geology of the Teapot Dome structure.

For lunch Saturday, the field party were guests of the Midwest Refining Company at the field dining hall. In the afternoon the power plant was inspected and its departments explained by A. W. Peake.

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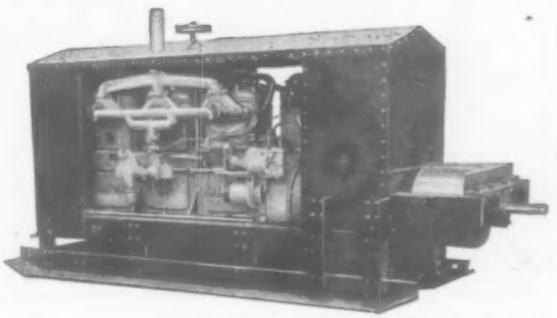

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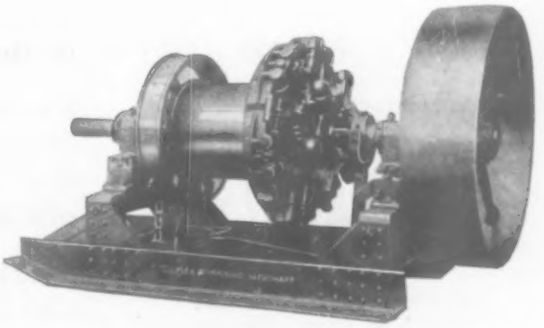

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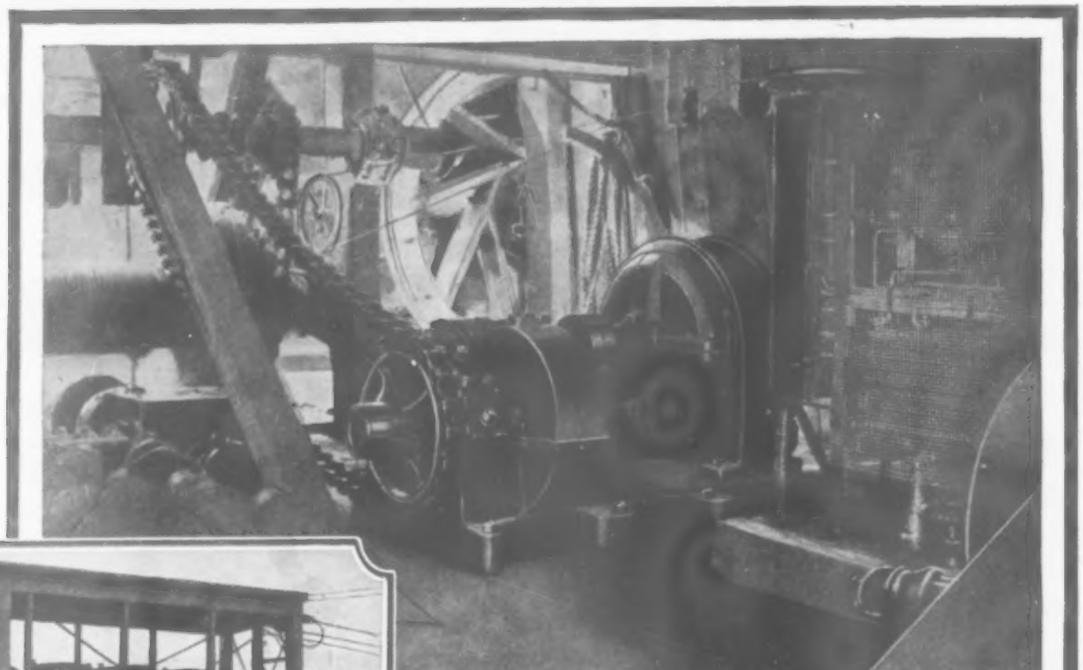

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Conservation Keeps Salt Creek On Right Side of Ledger

Full use of all gas for lifting oil has minimized oil lifting cost

THE importance of the Salt Creek field in Wyoming, among the major pools in this country is brought out in a paper read at the recent meeting of the American Institute of Mining and Metallurgical Engineers, at Casper. The paper is called "History of Production of Salt Creek Oil Field, Wyoming," and was written by Edward L. Estabrook, Casper, Wyoming, and Clarence M. Rader, Midwest, Wyoming.

Calculated on the posted field price, the total value of the oil that has been taken from the Salt Creek field is approximately $175,000,000. Drilling and production costs have been estimated at $50,000,000, leaving a credit balance to the field of about $125,000,000. To obtain the operating profit, royalty and taxes must be deducted.

Undoubtedly this excellent record can be traced to the fact that the field has never suffered over-production like a few other areas in the country. How proration was put into effect and enforced is told by Mr. Estabrook and Mr. Rader in their paper:

"During the first nine or 10 years, the full production of the field was handled by the pipe lines, except during occasional periods of over-production when some of the wells were shut in. Not until 1921 did production rise to a point where systematic proration of runs became necessary, and was in effect from March 1, 1921, until December 1, 1923.

"On December 1, 1923, increases in pipeline capacity and decline in production made it possible to take 100 per cent of the oil tendered.

Production Tests

"The most satisfactory system that was devised for determining the productive capacity of wells during this period of proration was the running of a three-day test every three or four months on each individual well or on a small group of wells producing into the same tanks. The sum of all these individual well tests gave the field a higher productive rating than would have been secured by a simultaneous testing of a large number of wells, but it provided an equitable method of applying the proration during a time when sufficient storage was not available to permit the testing of a large number of wells at one time. * * *

"During the greater part of the proration period, the potential production so exceeded the capacity of the pipe lines serving the field that it seemed necessary to attempt to limit the number of new wells to be drilled. This was accomplished, at first, by an announcement of the pipe line company that oil would be taken only from new wells that were the first to be drilled on a lease or were offsets to such wells or to older producing wells. This arrangement was made necessary by the fact that a great many new leases were being issued by the U. S. government upon which the lessees desired to complete a producing well as soon as possible, and that many of these leases adjoined patented or state land upon which the existence of producing wells required the immediate drilling of offsets to protect the government land. The pipe line company also attempted to limit the unnecessary shooting of wells by a regulation under which a well with a natural initial production of less than 100 barrels per day might be shot and the well prorated on its after-shot production, while the excess production obtained by shooting larger wells was not accepted.

Conservation Committee

"The first general meeting of Salt Creek operators was held in Casper in January, 1922, to discuss the difficulties that had arisen in connection with prorating. On September 20, 1922, another meeting was called and permanent organization perfected. A committee of seven were chosen to act, under the title of 'The Salt Creek Conservation Committee,' as the representatives of the operators in applying the prorate and controlling the drilling in the field.

"The first action of the committee was to arrange for a complete suspension of drilling in Salt Creek from December 1, 1922, to May 1, 1923, except in such cases as might be approved by the committee. M. J. Foley, a member, was employed to act as supervisor for the committee, to report to them concerning activities in the field, to investigate and adjust complaints concerning the application of the prorate and the drilling restrictions. The regulations concerning the shooting of wells and the tests to be made to determine the production of each well then in effect were continued by the committee. In addition, it was decided that shale oil would not be subject to the proration and could be produced at capacity. A levy of $2.00 per month per well was made on all Salt Creek operators to cover the expense of the committee.

"In spite of the failure of a small minority of the operators to support it, the Salt Creek Conservation Committee successfully held in check a situation that threatened, for a time, to result in a rapid drilling compaign with its concomitant evils of low prices for crude and extensive construction of storage tanks."

Utilization of Gas

Notable results have been achieved in the utilization of gas in the Salt Creek field, and this phase of development is explained at length in the paper:

"The problem of utilizing to the best advantage the energy of the natural gas associated with the oil, as the lifting force for producing oil from flowing wells, has been given much attention by the operators at Salt Creek. Tests conducted by the Midwest Refining Company confirm the results of experiments in California, and elsewhere, that the gas of a flowing well will do its maximum work of lifting oil to the surface when producing through a constricted opening. Each well presents a different problem and the proper size of the opening must be determined by the gas pressure and the quantities and relative proportions of the oil and gas being produced. The problem is to prevent the gas from reaching the surface without bringing with it a full load of oil. This condition is sometimes attained in a new well into which oil is entering with sufficient rapidity to load down all of the gas, but only too often the amount of gas produced during the early life of a well is so great, in proportion to the amount of oil, that only a part of its lifting power can be utilized. Such a well wastes gas if allowed to flow wide open and if 'pinched in' to conserve the gas it may produce little oil. It is this condition of nature that, in the terms of the political economist, makes the production of oil a 'natural monopoly.' In an oil pool entirely controlled by one owner, a well producing excess gas may be shut in and the waste stopped; but in a competitive field, the operator has no alternative but to produce his wells in the same manner as his neighbors under the penality of losing his fair share of the oil. Agreements among operators to maintain a certain back pressure are difficult or impossible to obtain. The greatest efficiency in oil production can be reached only when an entire pool is operated as a unit.

"The proportion of oil and gas escaping from an open well can be altered

Fig. 4.—Beam-pumping with gas engine, Ohio Oil Co. well No. 5

by restricting the flow or 'applying back pressure.' In spite of the fact that such restriction may mean that some of their gas and oil will be diverted to a neighbor, most operators eventually apply some back pressure to their wells in order to prolong the natural flow. The financial saving attained by postponing the time of pumping is expected to pay for the lost production. Unfortunately the conservation measures are seldom applied until the first 'flush' of the field is over and enormous quantities of gas have been lost. The object to be accomplished in handling a flowing well is to reduce the amount of gas produced to the minimum necessary to raise the oil to the surface.

"The amount of gas entering the well may be reduced by holding a back pressure at the surface and keeping the gas-bearing part of the sand covered with oil; and the efficiency in utilizing the lifting power of the gas may be increased by restricting the size of the fluid column in the well in proportion to the amount of oil being produced.

"A well producing a large amount of oil may use the lifting power of the gas very efficiently when producing six-inch or larger casing; but as the quantity of oil decreases the size of the casing should be decreased to prevent any of the gas from breaking through and escaping without raising any oil. This reduction in the size of the fluid column is usually made in Salt Creek by putting in two-inch tubing.

"While a well is flowing with considerable strength through tubing, greater efficiency is obtained when it is packed at the casinghead than when a packer is used near the bottom of the hole. The maximum efficiency is ing and tubing serves as a reservoir for gas and as a stabilizing effect on the flow of the well similar to that of an air tank in a compressed-air line. Only when the quantity of gas diminishes does it become necessary to reduce the size of the gas chamber by setting a packer at some point down the hole. The maximum efficiency is obtained by a steady flow of oil without the escape of any free or unloaded gas. Such a steady flow can be secured naturally only while the well is new and oil is entering the hole rapidly. Later the well may not make as much oil as its gas would lift efficiently. To avoid waste of gas, it is then necessary to resort to 'stop-cocking'; that is, shutting in a well until a quantity of oil has accumulated in the hole and a sufficient gas pressure built up to insure a flow when the well is opened. After cleaning itself, it is again shut in. Thus the escape of gas is permitted only while there is a load of oil for it to lift.

Gas Ratio Increased

"The average number of cubic feet of gas per barrel of oil produced in Salt Creek during 1923 is thought to be about 1500. During 1924, there appears to have been an increase to 2000 cubic feet, or more per barrel. The few data available concerning conditions prior to 1923 indicate that the ratio was still lower in the early days.

"The gas in Salt Creek was almost all found to be dissolved in the oil and it was not until recently, after 75,000,000 barrels of oil had been removed from the sand that any oil-free gas sand was found. After the removal of the oil the pore space has been occupied by gas, which has been released from solution in the oil as the rock pressure has decreased. This gas has worked its way into the upper part of the sand and, as the fluid level in the wells lowers, it escapes more freely. This has resulted in a continued increase, since 1920, in the amount of gas produced per barrel of oil; and as the gas is less directly in contact with the oil, its gasoline content has continued to decrease."

Fig. 5.—Beam-pumping with electric motor, Wyoming Associated Oil Co., well No. 18A

At this writing most of the wells in the Salt Creek field are on the pump. The general method of pumping, both with gas engines and with electricity is explained in detail by the authors:

Pumping

"On Jan. 1, 1925, over half of the oil wells in Salt Creek had ceased to flow and were pumping or being rigged up to pump. Both jack-pumping, from a centrally located band-wheel power plant, and beam-pumping with individual power units are being used. Typical installations for beam-pumping are shown in Figs. 4 and 5. Most of the deep wells around the edges of the field are pumped on the beam, partly because of the depth and partly because either the arrangement of and distance between the wells or the ruggedness of the topography are unfavorable to the installation of a jack plant. On the properties operated by the Midwest Refining Company, where electric power is to be used, practically all the wells will be beam-pumped. The operating economies to be obtained by having a rig and power unit at each well for pulling and clean-out work, together with the greater production that can be obtained by individual beam-pumping during the early life of the well, are believed to be sufficient to warrant the capital investment required. Several companies in the southern half of the field are installing jack plants operated by gas engines to pump wells from 1900 to 2500 feet in depth.

Pumping Equipment

"The equipment for pumping usually consists of 2-inch tubing, ⅝-inch sucker rods, and plain steel and plunger working barrels; 2½ or 3-inch tubing is used on wells that make more oil than can be pumped with 2-inch equipment. The oil sands are firm and after the first thorough cleaning do not generally make much floating sand,

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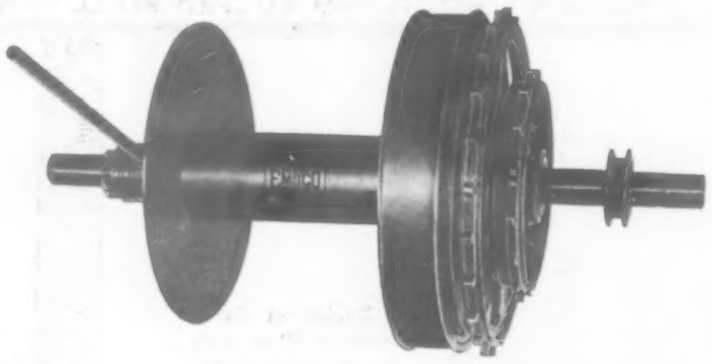

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consequently there is little demand for the special pumps that have been devised for use in the California and Gulf Coast fields.

"The perforations in the tubing below the working barrel, through which the oil enters the pump, are now set at or about the top of the oil sand in order that the sand may be kept covered with oil. It is thought that this keeps the sand cleaner and prevents the deposition of paraffin. Certainly it prevents gas from escaping through the upper part of the sand without bringing oil into the well. Later, when the gas has been practically exhausted, the perforations, and consequently the fluid level, must be lowered to the bottom of the sand in order to give the oil and gas the greatest freedom to enter the well. While considerable rock pressure remains, oil and gas will migrate to the well in spite of the opposing pressure of the column of oil covering the sand; but as the rock pressure diminishes the maintenance of a differential sufficient to induce a flow toward the well will require a lowering of the fluid level.

"Gas Anchors"

"After an oil well ceases to flow and pumping has just begun, much trouble is experienced from gas accumulations in the working barrels of the pumps, which stop the movement of oil. The difficulty can be partly overcome by "gas anchors," which tend to separate the gas from the oil before the oil enters the pump. After entering the perforations below the working barrels, the oil is drawn downward through one or more sets of perforations instead of passing directly to the pump. A successful type of gas anchor in use in Salt Creek is made up of 1-inch, 2-inch and 4-inch pipe. The oil enters the 4-inch pipe at the top of the sand, passes downward several feet and enters the 2-inch through perforations. After another drop, the oil enters the 1-inch pipe and is then drawn up to the pump. The oil and gas tend to separate during each downward movement of the oil. The gas escapes to the surface between the casing and the tubing, while the oil is pumped up the tubing. The removal of the gas and the elimination of 'gas pockets' in the pumps is greatly facilitated when the natural-gasoline plants can connect to the casinghead and draw off the gas before it builds up any pressure.

"The power units installed for beam pumping are usually a 30-hp. gas engine or a 5-, 7½-, or 10-hp. electric motor, as determined by the depth of the well, and the amount of fluid being pumped. The weight of the rods is usually counterbalanced by a cement block, as shown in Fig. 5. The use of cast-iron weights attached to the band wheel is a new design of counterbalance which is rapidly coming into use. On a jackplant installation, the wells on opposite sides of the power plant balance each other or counterbalances are installed to equalize the weight.

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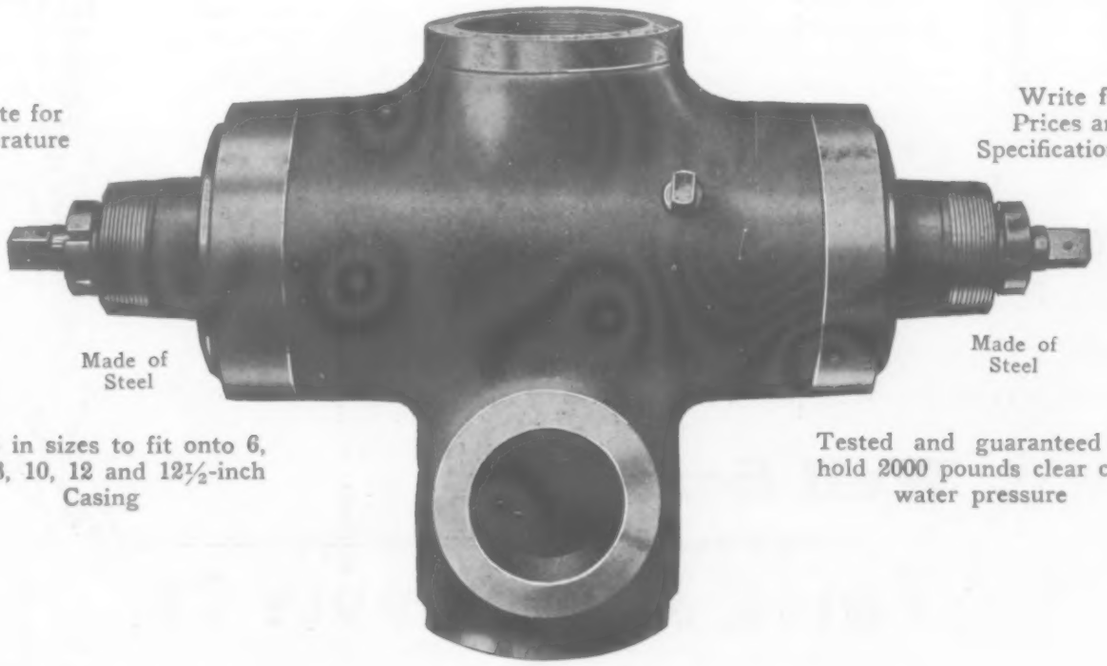

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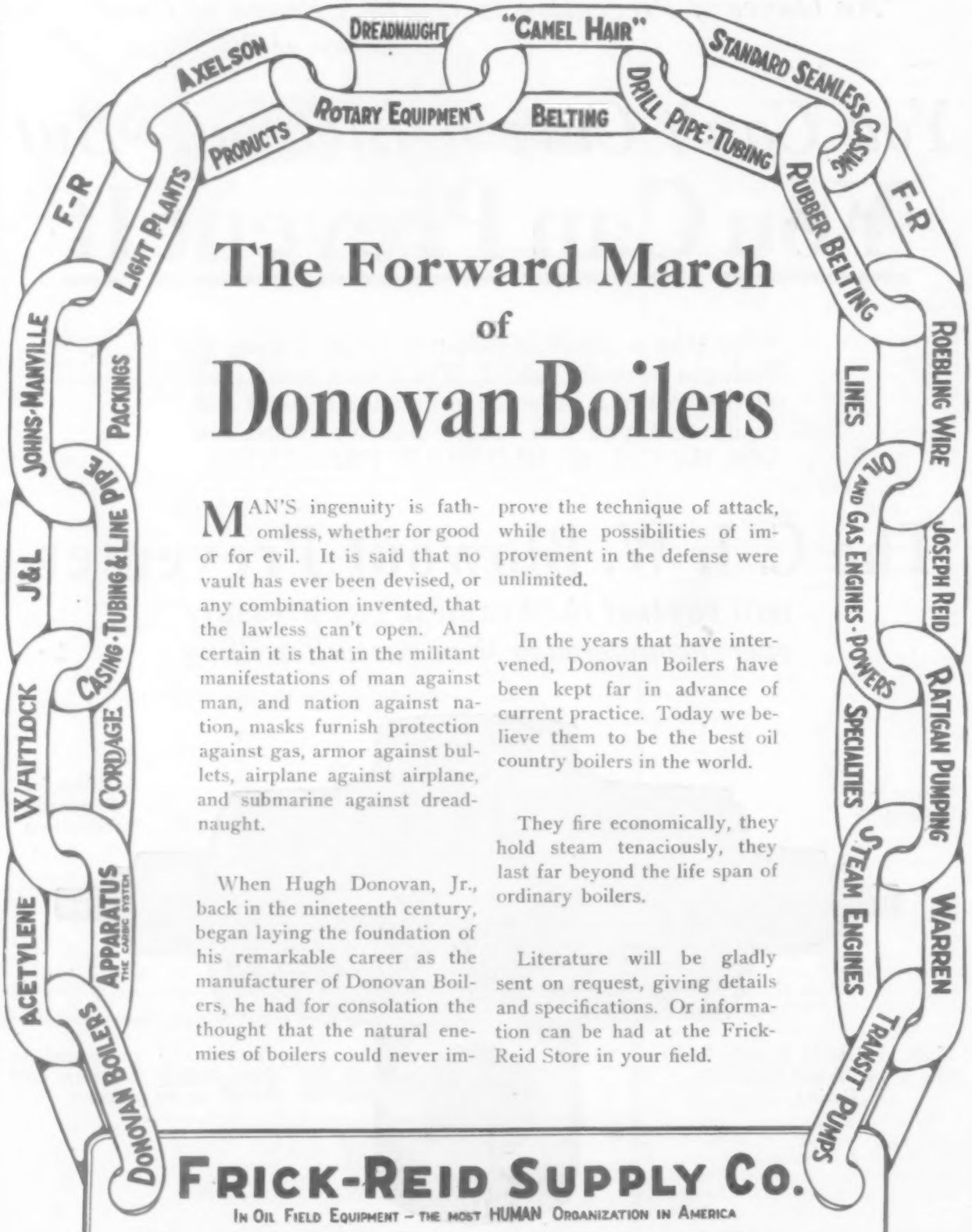

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Deepest Hole—Deepest Core—Deepest Sand, Is Well Record

By Wm. V. Gross
Staff Representative

Los Angeles, Calif.—When E. J. Miley's No. 6 well in the Rosecrans field passed the 7400-foot mark, August 27, three new records in rotary drilling were established. The first world's record hung up was for the deepest rotary hole ever drilled; the second was for taking a core at the greatest depth one has ever been taken, and the third world's record was established by finding the deepest oil sand known.

Previous to Miley's record, the world's record for rotary drilling and coring was held by the Union Oil Company of California, which went to 7320 feet with a 4¾-inch hole, and successfully took a core at that depth in a well located on its Gardena lease in the Dominguez field.

Made Good Time

A check of the driller's log Thursday showed 244 days of elapsed time since the well was spudded in, but only 183 days of actual drilling. Eight of the intervening days were taken up with waiting for a cementing job to set; 10 days were spent in fishing and milling out a bit; one day spent in repairing the rig, and 38 days the rig was idle.

During the 183 days of drilling, 135 cores were taken, with the Elliot core barrel, which was used exclusively for coring on the well. This, notwithstanding the tediousness of progress brought about by elaborate coring operations and the great depth of the hole, gave the operators an average of better than 40 feet per day.

Down to 4526 feet, the usual fishtail, disc and rotary bits were used, but below that depth to the present depth of 7400 odd feet, nothing but the Hughes rock bit and the Elliott core barrel were used to make hole, which was of 7¾ inches diameter to 7116 feet and 5⅝ inches below that depth.

Equipment Used

For 57 fourbles and one thribble, National seamless drill pipe, a 5-inch drill stem was used, which was substituted for by a 4-inch drill stem until the hole had reached a depth of 7080 feet. Then a 3-inch Union Tool drill stem was brought into play when the bit went below 7080 feet. All tool joints for the drill pipe were furnished by Hughes.

Practically all drilling equipment on the rig was that of the Union Tool Company. This included a 10 x 10 twin engine, a No. 5 three-speed draw works, a No. 10 heavy duty rotary table and machine, two 12 x 6¾ x 14 mud pumps, and a type D 6-inch swivel, dropped from a four-sheave Baash-Ross traveling block.

Log Is Interesting

The log of E. J. Miley's No. 6 below 5290 feet is interesting to the majority of California operators, as the number of wells drilled below that depth, to say nothing of those encountering a fair showing that far down in the earth, are few. It follows in tabular form:

5287-	set 8¼-inch casing.
5290-5300	brown shale with streaks of gray sand.
5300-5322	brown shale.
5322-5334	gray sand with no cut.
5334-5342	sand, shale and gray sand.
5342-5344	hard brown shale.
5344-5349	hard brown shale, streaks of oil sand with good cut.
5349-5508	brown shale, streaks of gray sand with no cut.
5508-5514	shale streaks, oil sand with good cut.
5514-5784	brown shale, streaks of gray sand, no cut.
5784-5793	shale, streaks of oil sand.
5793-6345	shale, streaks of gray sand.
6345-6363	shale, streaks of oil sand, fair cut.
6363-6619	shale, streaks of gray sand.
6319-6635	shale.
6635-6706	shale, fine streaks of oil sand, fair cut.
6706-6803	tough shale, streaks of gray sand.
6803-6811	tough shale.
6811-6824	shale, streaks of sand, fair to no cut.
6824-6892	shale, streaks of gray sand.
6892-6902	shale, thin streaks of oil sand, fair cut.

(Continued on following page)

Left to right: Back row: Doc Knowlton, production superintendent; Bob Garrison, geologist; Merritt Aldrich, tool dresser; R. L. "Cy" Pedrick, driller; R. T. "Bob" Sanford, driller; N. H. "Shorty" Hayhurst, driller; D. A. Dechman, roughneck; Guy Edrington, roughneck; Max Williams, derrick man; J. J. "Red" Boyd, tool dresser. Bottom Row: F. Dilley, timekeeper; D. D. Long, Hughes Tool Company salesman; E. K. "Babe" Allison, general superintendent, and two dark horses

Salt Water May Spell Ruin for Deep Sand at Garber

Outlook of new horizon not so bright as five wells show water in increasing quantities

By Roye C. Munsell
Staff Representative

Tulsa, Oklahoma.—As this is being written, the future of the deep sand at Garber is very much in doubt. Salt water is beginning to show in considerable quantities. Five of the big deep sand wells are yielding salt water in increasing quantities before the anticipated peak of production in that new field is reached.

The first well to show salt water in any marked degree was the Sinclair Oil & Gas Company's Denker 26, NE NE SW 13-22-4w. Later the discovery well, Sinclair Oil & Gas Company's Belveal 25, 13-22-4w, producing from the 4400-foot stratum, experienced the same predicament. This well touches about 100 feet higher than the Denker 26, which was drilled to 4507, the deepest point toucned at that time.

The Healdton Oil & Gas Company's well on Belveal 26, 24-22-4w, which started off with an initial flow of 1200 barrels, got salt water when drilled to a further depth of 4517 feet in order to try to hold up its production. An attempt is being made to save it by plugging back. This location is a half mile west of the Sinclair discovery well, Belveal 25, 13-22-4w.

Another setback came when the Mid-Continent-Marland well, on School Land 41, SEc SE SE 13-22-4w, shot forth a fluid that was 75 per cent salt water when it encountered what was predicted to be a big pay at 4382 feet.

Whether or not these prove the intrusion of salt water in the deeper pay sands which gave further promise of making Garber Oklahoma's greatest pool, remains to be seen. In the meantime, 64 wells are being driven down to the "big pay" sands.

6902-7078 shale, streaks of gray sand, no cut.
7078-7107 tough shale.
7107-7117 hard gray shale.
7117-7165 shale, streaks of sand, trace of oil on ditch.
7165-7189 shale, streaks of oil sand, fair cut.
7188-7226 shale, streaks of gray sand.
7226-7236 sticky shale, streaks of gray sand, faint cut.
7236-7261 sand, streaks of shale, fair cut.
7261-7269 shale with sand.
7269-7275 12-inch shale and 36-inch sand, good cut.
7275-7299 shale and sand, fair cut.
7299-7301 good oil sand.
7301-7395 formation running 60 per cent sand and 40 per cent shale.
7395-7401 same.
7401-7404 sand with faint cut.

After having passed the 7404-foot depth, August 28, it was announced from the Miley headquarters at Los Angeles that the well would be drilled deeper, and that if nothing important showed up within a reasonable length of time, a production test of sand encountered above the present depth would be made.

Cut Was Expected

The cut of 25 cents in the Mid-Continent crude oil prices by the Prairie Oil & Gas Company has acted to put Mid-Continent developments on a still more conservative basis.

The cut itself was really no shock. The operators had been expecting it for several weeks. Such a cut was anticipated even before The Texas Company took the initiative the Saturday before and lowered its prices from 11 cents to 37 cents per barrel.

That such a cut was expected is no doubt shown by the fact that for several weeks the amount of new work being started was decreasing. There are now only 1457 locations in Oklahoma and 850 in Kansas.

As to oil production in the Mid-Continent area, almost every field has been proving a disappointment, and all have been having a rather mixed success.

Rainbow Bend Off

The Rainbow Bend field in Kansas has fallen considerably from its one-time production of more than 20,000 barrels. It now stands at 9652 barrels.

Whether or not the new wells that are being drilled across the river will be able to bring production back, is to be seen later. The well receiving the most attention is the Marland Oil Company's Hunt No. 1, in Section 21-33-3. Just north of this well in the same section the Gypsy Oil Company has a Hunt well also, and it is drilling below 2865 feet. Much interest is focused on the completion of these two wells. If no serious trouble is encountered, they will be drilled in during the week.

Much attention is being given the district around the city of Seminole, Okla., as the result of the Superior Oil Corporation's wildcat well in the NE NE NW 15-9-6, finding pay at 2631 feet. For a while it caused undue excitement because the sand was not expected until 2740 feet.

The well is the Noble 1 and lies about two miles north of the city of Seminole, in the northwestern part of Seminole County.

This district has seen much leasing activity during the past year, and since most of the acreage is due to expire soon, some fast play is expected in that area.

Oil Men Will Have Big Day at Shreveport Fair

Shreveport, La.—The executive committee of the Louisiana-Arkansas division of the Mid-Continent Oil & Gas Association will sponsor a special celebration and reunion of the veterans of the Caddo, Homer, El Dorado and Smackover booms, to be held on Oil and Gas Industry Day, Louisiana State Fair, October 31, 1925.

As explained by George O. Baird, president of the division, the purpose of this undertaking is to impress upon the citizens of these states and to disclose more forcibly to the industry itself the magnitude of the oil business in this territory and its importance to the community. Joseph B. Elam, secretary of the Louisiana-Arkansas division, states that the best brains of the Louisiana-Arkansas unit of the industry have been drafted into service on committees charged with the success of this celebration, and that an interesting, instructive and highly creditable exhibition may be expected.

A parade is scheduled for the forenoon of Oil and Gas Industry Day, in which representatives of all divisions of the oil and allied industries are to participate. Arrangements are being made for the attendance of several bands, including the Stanocola Band from the refineries at Baton Rouge, the Magnolia Petroleum Company's band from Beaumont, and the Mexican Petroleum Company's band from Destrahan, La. A special march, composed for the occasion and dedicated to the oil and gas industry, is being rehearsed.

The parade is to be divided into 25 or 30 different sections, embracing all divisions of the industry. A number of unique and interesting exhibits are to be erected at the fair, according to plans which are not yet fully mature.

Good Show Encourages Prospects In Far West Texas

Continued search for production resulting in many dry holes

By H. H. King
Staff Representative

San Angelo, Texas.—Additional evidence of a deep high-gravity oil-producing area existing along the banks of the Pecos River, in southwestern Loving County, was offered late last week when the P. V. Petroleum Company's wildcat on the J. J. Wheat land developed 1600 feet of 38-gravity oil in the hole, with some gas in evidence, from sandy lime pay at 4211-33 feet. This wildcat is about 75 miles south and slightly east of the semi-shallow oil production in the Artesia field, located in the Pecos River valley region of New Mexico, while the nearest oil field in Texas is the Big Lake field, located more than 100 miles to the east and south. Unless deeper drilling greatly increases the volume of oil production in the wildcat on the Wheat land, its performance will do no more than furnish added proof that a deep oil horizon with a small yield exists in this particular section of West Texas, as a nearby wildcat was brought in flowing by heads at the rate of about 20 barrels of 38-gravity oil daily at 4325-4485 feet in the latter part of 1921.

The new oil strike in Loving County is located in the northeast corner of Section 82, W. & N. W. Railroad survey, Block 1, and on the east side of the Pecos River. Drilling was started in June, 1924, with rotary equipment, and considerable time was lost in sinking the test, owing to its remoteness from supplies. The location for the Wheat wildcat was picked on the strength of the showing made by the Ramsey Oil Company (was Toyah-Bell Oil Company) Russell 1, located in the center of the southwest quarter of Section 80, and less than one mile southeast of the Wheat test.

The Russell test stirred up interest in West Texas wildcat activity in October, 1921, when sandy lime pay at 4325-75 feet proved good for 10 barrels of oil daily when swabbed. The hole was carried to the 4425-foot level, and when cleaned out to bottom the fluid rose 2500 feet with sufficient gas pressure to hurl small heads of oil and some water to the crown block when tubing was put in the hole. This oil tested 38 gravity, and is said to be similar in grade with that now showing in the Wheat test. The Russell wildcat was later drilled to a total depth of 4591 feet in the early part of 1922, without increasing production. While trying to plug back from 4591 feet to shoot oil and gas pay between 4285-4485 feet, the 5 3/16-inch casing parted, and an endless fishing job resulted. Other troubles developed while this fishing job was taking place, and the Russell test has since been standing idle with some oil in the hole.

Allowing for a difference in surface elevation by reason of the Russell test being located higher, the two logs compare favorably, and the new strike indicates that the oil-producing area may extend over considerable acreage in the river valley, although it remains to be determined if flush production of any consequence is to be had. The depth of the oil horizon will undoubtedly prove to be a discouraging factor in properly exploring the district, even though the drilling is somewhat easy to negotiate with rotary.

Magnolia Petroleum Company has made location for a south offset to be drilled to its wildcat oil producer on the Mary Foster land in Mitchell County. The wildcat producer was completed August 18, with an initial production of 28.5 gravity oil from gray sandy lime pay at 2860-70 feet, and is now flowing by heads every hour and 55 minutes at the rate of 120 barrels daily. The new location is on the W. W. Watson land, and is 2970 feet west of the east line and 330 feet south of the north line of Section 20, Block 29, T-1-S.

Big Lake Field

Inside locations in the Big Lake field scored heavy in flush production late last week when the Big Lake Oil Company completed two big wells. This company's University 39 started flowing 240 barrels of pipe line oil hourly after drilling regular oil pay at 2871-77 feet, and University 20 flowed 155 barrels per hour from pay at 2910-27 feet. The output of the field averaged 31,855 barrels daily during the past week, or 1345 barrels under the record mark established the week previous, while this coming week promises to set a new record for the field, since the Texon Oil & Land Company has several wells in process of completion also. Texon's University 4, Group 2, located one mile east of production, has been shut down at a reported depth of 2840 feet, pending the arrival of officials of the company before drilling in. This test gives promise of adding considerable proven acreage to the present production holdings of the company.

The widespread search for new oil-producing areas in West Texas continues to exact a heavy toll of dry holes, and during the past week Gulf Production Company abandoned a 4280-foot hole in Pecos County, while its second wildcat on Section 1, Block 1, Reagan County, was given up on account of water at 3255 feet. Humble Oil & Refining Company's wildcat on the C. C. Slaughter ranch in Martin County is awaiting orders to plug with sulphur water in hole at a total depth of 4335 feet. In Crockett County the Crockett Drilling Syndicate's Robert Massey 1 has reached a depth of more than 3000 feet without affording any promise of encountering oil or gas. In Reagan County W. H. Dunning et al's J. D. Sugg 1 is dry at 3045 feet, with drilling continuing in accordance with contract, while Buster Cogdell et al's University 1 has shut down for orders after encountering sulphur water at 3180 feet.

Government Receipts From Royalties Show Big Slump

Washington, D. C.—Receipts from mineral leases on public lands fell off more than $5,000,000 during the fiscal year ended June 30, last, as compared with the preceding fiscal year, acocrding to figures just compiled by the Department of the Interior. Receipts during the year were $8,278,708, as compared with $13,631,840 in the fiscal year 1924.

The greatest decrease was from leases in Wyoming, where the receipts declined from $12,270,500 in 1924 to $6,953,501 in 1925. A decline in the price of oil from a maximum of $2 per barrel during March, April, May and June, to a maximum of $1.50 during August and September, and $1.25 in October, November and December resulted in the wells being closed temporarily, or in pumping to storage and holding for better prices. Leases in California showed a gain in receipts from $957,480 in 1924 to $1,037,007 in 1925.

This income represents receipts of the Government from royalties, bonuses and rentals from oil and gas, coal, oil shale, sodium, phosphate and other minerals. The following table shows the receipts, by states, for the fiscal years 1924 and 1925:

State—	1924	1925
Alabama	$ 85,460.00	$ 920.00
California	957,480.64	1,037,007.05
Colorado	33,513.46	71,284.73
Louisiana	2,295.75	925.31
Montana	225,501.30	172,684.19
Nevada	.....	720.00
New Mexico	4,784.20	3,474.26
North Dakota	10,587.14	8,136.01
South Dakota	34.81	168.15
Utah	35,402.58	26,821.99
Washington	6,280.09	3,065.49
Wyoming	12,270,500.75	6,953,501.44
Totals	$13,631,840.72	$8,278,708.62

California Daily Production Continues Downward Trend

Four larger fields on increase but State as whole is falling off

By Wm. V. Gross

Staff Representative

Los Angeles, Calif.—Despite the fact that four of the state's major fields showed an increase in the daily output of crude during the week ending August 29, the downward trend of production started some two weeks ago continues.

During the past week, California fields yielded light and heavy oil at the rate of 683,700 barrels per day, as against 686,500 barrels per day the week previous.

Inglewood Up Again

One hundred and thirty-five wells in the Inglewood field established a daily average there of 108,500 barrels last week, representing a gain of 1500 barrels over the average of the week before. This condition is attributed to the fact that the production decline at Inglewood is becoming less rapid in the older wells than it has been of late, and with a certain degree of stability in the settled production, initial output is expected to have more effect on the field's daily average than it had a month ago. The field witnessed the completion of only five wells during the week ending August 28, but these wells had an aggregate flush of 6975 barrels, all of which was light oil.

Torrance field production was up 1000 barrels this week dut to six completions, the most important of which was the Chansler, Canfield, Midway Oil Company's Del Amo 81, which registered an initial of 1000 barrels at 3500 feet. The well is unusual in that it was completed at a depth from 200 to 300 feet above other producers in that section of the field. As core examinations indicate the sand obviously is the same as that from which other wells in the field are producing, the theory is held that C. C. M. O.'s Del Amo 81 is producing from a high spot on the structure. However, the well is located in the center of a lease of considerable magnitude and will not noticeably affect drilling programs of other operators in the field, though it has a tendency to enhance the prospects of the C. C. M. O. holdings to the southwest.

Maricopa Interest Fades

Although seven new wells, which were largely forced effects, have started down in the region of the Obispo Oil Company's No. 6 gusher in Kern County, the number of those who hold the theory that the well is a freak, as were its three predecessors in the same locality, seems rapidly growing. No. 6 created quite a flurry when it came in a few weeks ago with an initial production estimated at 10,000 barrels, coming from about 4000 feet, a depth considerably below the three sands previously found in the Maricopa Flats region. There was the inevitable scurrying for leases and royalties just after the well's completion, but the excitement seems to have faded out. Since the well sanded up July 13, at which time it was producing about 5000 barrels per day, the operators have been unable to put it back on production. This situation is partly responsible for suspended activity and interest in the locality. And while a few wells are deepening, operators can not be expected to carry on development work as enthusiastically when working in the dark as they would if there were some tangible geological data upon which to base their actions.

Marine's No. 7 Dies

Long Beach field, which has long held first place among the state's producers—with the exception of temporary spurts which put Inglewood at the top of the list a few times,—has been deprived of one of the field's most valuable producers. The Marine Oil Corporation's No. 7, which has been producing at the rate of 2500 barrels per day for nearly three years, has ceased to produce. On December 3, 1922, the well was completed at 3790 feet with an initial of 8000 barrels. This gradually decreased until the well was re-completed November 9, 1923, at 5070 feet, from which depth the flush gauged 6297 barrels of 30 gravity oil. It has been roughly estimated the No. 7 has contributed 2,500,000 barrels to the field's output.

James O'Donnell's progress in the American Avenue section of Long Beach seems marked with good fortune. The

Late Developments at Urania More Promising of Production

Shreveport, La.—Recent news from Urania is more encouraging than any that has emanated from La Salle Parish since the completion of the Urania Petroleum Company's flash-in-the-pan discovery well, more than five months ago. Bill Rowe's Hardtner No. 1, in section 19-10-2e, has been put on the beam; and is credited with a production of 92 barrels during the first twenty-four hours of operation, and a total of 80 barrels during the second twenty-four hour period. It is making oil of approximately 20.8 gravity, containing four per cent salt water and about one-tenth of one per cent b. s. The Urania Petroleum Company's Urania Lumber Company No. 7 has been on the beam about two weeks; and is said to have produced around 350 barrels of net oil during the fortnight. It is now pumping at the rate of 200 barrels of fluid per day, of which a large percentage is salt water. Zeigen et al's Urania Lumber Company No. 1, in section 18-10-2e, is flowing at the rate of 40 barrels of fluid per day, of which 20 or 25 per cent is oil of the same gravity as that produced by Bill Rowe's well.

Love et al tested satl water last week in a sand which showed oil in small quantities at a depth of 1532-34 feet in their well, known as Tremont Lumber Company No. 2, in section 30-10-2e. Preparations are being made to drill deeper.

Considerable interest was aroused when it became known last week that the Dixie Oil Company has asesmbled a wildcat block of several thousand acres in and around township 9 north, range 2 east, La Salle Parish, approximately ten miles south from the Urania wells.

The Ohio Oil Company is drilling deeper at around 2700 feet after having bailed dry at 2661 feet in its Rowland wildcat, in section 5-12-1w, about eighteen miles northwest from Urania.

J. E. Smitherman, who figured prominently in the discovery of the Haynesville Field, is drilling at 2215 feet in his current wildcat operation, which is located on the properties of the Hunt-Hodges Lumber Company, in section 8-15-5, Bienville Parish.

John Snyder's Keen wildcat, in section 7-19-5 of the Sugar Creek community in Claiborne Parish, is shut down for water at a depth of 2090 feet.

The Ohio Oil Company is preparing to drill deeper after having bailed dry at 3625 feet in its E. K. Smith No. 17, a deep test now being drilled in section 12-21-15, in the general vicinity of the Dixie Oil Company's famous Pine Island gas well.

It is calculated that the Gulf Production Company's Ferry Lake No. 215, a freak gusher surrounded by small pumping wells in the Mooringsport District of Caddo Parish, has produced more than 1,015,000 barrels of oil, net, since its completion on April 15, 1924. This remarkable well, which was choked down to an initial production of 4000 barrels per day, is still flowing strong at the rate of around 1250 barrels daily.

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latest addition to that section of the field has been his O'Donnell 41, which was brought in from 4550 feet with an initial production of 1500 barrels. One small well each was completed in the field the past week by the Black and Gold Royalty Company and the Petroleum Midway Company, giving the field a daily average of 109,700 barrels.

Of the 50 important wildcats in the state, the Petroleum Securities Company's (Doheny) Narboenel at Palos Verdes seems to have the most possibilities. The well is located about three miles south of Torrance field, 598 feet north and 535 feet west of the southeast corner of Lot A, Tract 954. Although the well is only fairly started, drilling a little below 600 feet at this writing, it is believed to be situated on the structure.

Deep Sand Production In El Dorado East Field

El Dorado, Ark.—Arkansas operators are freely predicting a deep sand boom for the El Dorado East Field, sometimes referred to as the Calion District, where Jim Stock and associates have brought in a well which is now flowing at the rate of 150 barrels of oil per day from three feet of sand at a total depth of 2869 feet. It will be recalled that, heretofore, production in the East Field has been confined to the Nacatoch sand at a depth of around 2200 feet. Stock's well, which is located on the Ezell farm, in the southeast corner of the SW¼ NE¼ of section 18-17-14, Union County, is flowing through two-inch tubing and is yielding 31½ gravity oil containing less than ten per cent of salt water.

An important lease trade has been made, on the basis of the showing of the Ezell well. Dan Brooks is said to have acquired a forty-acre tract described as the NE¼ NW¼ of the section in which the discovery well is located for a consideration of $20,000.00 cash, plus a similar amount to be paid from oil production, if any.

Smackover operators are continuing aggressively in their search for a fourth productive sand on the Norphlet Dome, in townships 15-15, 16-15, and 16-16. Smitherman & McDonald are drilling below 2800 feet in their Dumas No. 1, located in the northeast quarter of section 23-16-16. The Mazda Oil Company's Lawton R-4, located in the northeast quarter of the southwest quarter of section 10-16-15, was brought in last week with an initial flow of 20,000,000 cubic feet of gas and 5000 barrels of salt water per day. This hole was plugged back to 2738 feet, after having been drilled to a total depth of 3255 feet. Eight-inch casing was cemented at 2708 feet. The Gulf Refining Company tested salt water last week in six feet of sand at a depth of 2740 feet in its Howard deep test, in section 13-16-16. Crosby and associates are drilling at around 3350 feet in their Berry No. 12, in section 33-15-15. The Duho Oil Company is drilling at approximately 3000 feet in its McKenzie A-1, in section 36-15-16. The Marine Oil Corporation is drilling at 2960 feet in its Umstead No. 9, a deep test located in section 5-16-15 of Ouachita County.

Warbler and others have tested salt water at 2634 feet in their Morrison wildcat, in section 12-18-14, Union County. The Texas Company is coring at 3040 feet in its wildcat well located on the property of the Saline Lumber Company, in section 11-17-10, Bradley County.

Mexican Heavy Well Is Making 25,000 Barrels

Chijol, Veracruz.—The largest well to be brought in in the new heavy oil district in many months and the one with the best prospects is the completion of well No. 218 of the Mexican Seaboard Oil Company in Cacalilao for an estimated initial production of 25,000 barrels at a depth of 1760 feet. It is the belief of the company that it has hit the high spot in this part of the lot in view of the fact that it is 310 feet shallower than the nearest producer, No. 161, also owned by the Mexican Seaboard which has made over 1,160,000 barrels of oil without showing the least trace of salt water and is flowing at the rate of 8280 barrels a day. It is 400 meters from No. 218, which in turn cannot be offset by any other company within 700 meters. It is probable that in view of the shallowness of the new producer that drilling will be suspended in the immediate neighborhood and efforts concentrated in other parts of the hacienda.

To Lease Arkansas River Bed

Topeka, Kans.—The Kansas state executive council will hold a conference with representatives of oil companies shortly, probably September 9, to discuss the leasing of the bed of the Arkansas River in the Rainbow Bend field in Cowley County. Several oil companies have offered to pay the state a bonus as well as royalties.

Few Successful Completions Reported in Tampico District

Tampico, Tamaulipas.—Success follows the efforts of the Mexican Petroleum Corporation (Pan American Eastern) in its Ebano holdings. During the week ending August 22, it had two good completions in No. 33 Chijol, brought in for 5000 barrels at 1805 feet and No. 7 Mendez, completed for 1000 barrels heavy production at 1855 feet. Together with the Mexican Sinclair No. 41 Cacalilao, these were the only really successful completions during the week in question although the Mexican Seaboard got 150 barrels in No. 222, Cacalilao and a dry hole in No. 8, Corcovado, and the Inter Mex, 100 barrels in No. 1 Tampuche. Other completions were Cosmos 57, Corcovado, dry; Cia. Meridional No. 7 Halcon, dry; Mexican Gulf No. 19, Altamira and No. 10, Chapacao, both dusters; Panuco Boston No. 5, Vega de Otates, salt water and Transcontinental Petroleum Company (Standard of N. J.) No. 141, Cacalilao, dry.

During the same week 14 wells were spudded in. The Mexican Petroleum led with Nos. 41, Chapacao, 35 and 36, Chijol, and 63, La Dicha; Mexican Sinclair No. 9 Guiterrez and No. 7, Zurita; Mexican Seaboard No. 2, Las Piedras and No. 144, Cacalilao; Mexican Gulf No. 73, Cacalilao; National Oil Company No. 4, Herradura and Nos. 22 and 40, Chijoles; National Railways, No. 18-a, Chapacao and The Texas Company of Mexico, No. 9, Potrero de Isleta.

Government Leases Granted On Four Prospecting Permits

Washington, D. C.—The Interior Department has announced the signing of four oil and gas leases in California and Wyoming, issued on prospecting permits where there was an actual discovery.

Two of the leases were awarded to the Federal Drilling Company, Los Angeles, one for a tract of 160 acres and the other for 240 acres in Kern County, at royalty rates of five per cent and 12½ to 33 1-3 per cent, respectively. Oil was discovered this spring at a depth of 4800 feet, with an estimated production of 2000 barrels. On the oil already produced the Government received $6,490 in royalties.

The other leases were issued to the Wyoming Reserve Oil Company, Thomas F. Kearns, David Keith and E. L. Chesney, residents of Salt Lake City, on 600 acres and 1827 acres in Lincoln County, Wyoming. Two wells have been drilled on the tracts and a third well is reported under way. Total rentals and royalties already collected for the Government amount to $2,740. The terms of the leases provide for a payment of a royalty of five per cent and from 12½ to 33-1/3 per cent respectively.

Texas Suit Says Gas Contract Is Anti-Trust Law Violation

Austin, Texas.—Attorney General Dan Moody filed anti-trust suit and petition for forfeiture of franchise and charter and apopintment of receiver against the Amarillo Oil Company and the Panhandle Pipe Line Company in district court of Williamson County, it was learned on his return here Sunday from Georgetown. He alleges a contract between the two concerns by which the gas of the oil company has been carried into and supplied the city of Amarillo to the exclusion of all other companies in violation of anti-trust statutes.

Appointment of a receiver for the two companies, pending final hearing, forfeiture of their charters and franchises for alleged violation of the state law, are asked by the attorney general.

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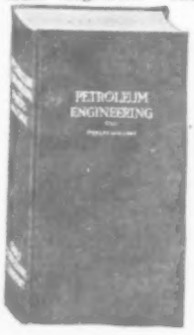

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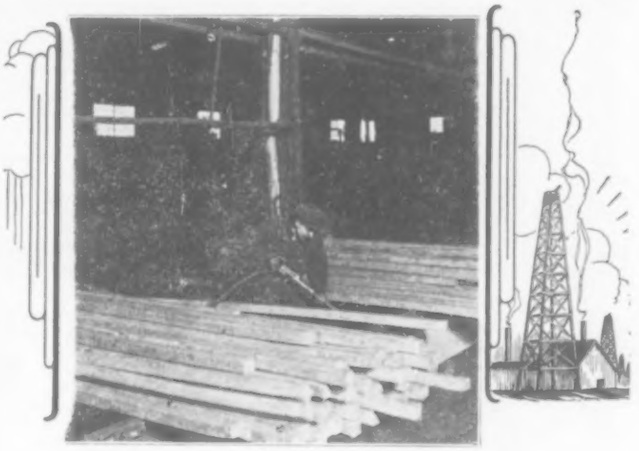

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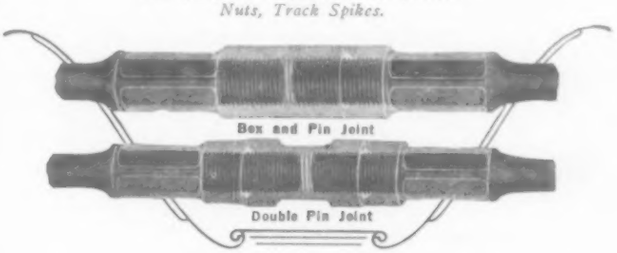

CRUDE OIL PRICE QUOTATIONS

Crude Price Changes

August 29—Effective at the opening of the market today the Joseph Seep Purchasing Agency reduced the price of eastern crudes 25 cents per barrel.

August 28—Effective at the opening of the market today the Ohio Oil Company reduced the market price of Central States crude 25 cents per barrel. Waterloo crude was reduced 10 cents.

August 28—Effective at the opening of the market today the Ohio Oil Company posted a 25 cent reduction in the price of Mountain States crude.

August 29—Effective at the opening of the market today the Standard Oil Company of California posted a 30 cent reduction in the price of California fuel oil.

August 28—Effective at the opening of the market today the Imperial Oil Company, Ltd., posted a 25 cent reduction in the price of Canadian crude.

August 27—Effective at the opening of the market this morning the Prairie Oil and Gas Company posted a 25 cent reduction on all gravities of Mid-Continent crude. Other major purchasers met the cut.

August 27—Effective at the opening of the market today the Standard Oil Company of Louisiana posted a 25 cent reduction in the price of Caddo, Homer, Haynesville, El Dorado, Bull Bayou, De Soto, and Crichton crudes.

August 28—Effective at the opening of the market today the Standard Oil Company of Louisiana posted a five cent increase on the lowest grade of Caddo, all grades of Homer, Haynesville, and El Dorado, and on the first three grades of Smackover crudes. This notation accompanied the announcement of the cut: "This change in price quotation is made in order to make, as near as possible, a parity in prices of different groups." This change was met by the Louisiana Oil Refining Company, the Gulf, Atlantic Oil Producing Company, and the Shreveport-El Dorado Pipe Line Company. The Louisiana Oil Refining Corporation, Atlantic Oil Producing Company, the Gulf Refining Company, and the Shreveport-El Dorado Pipe Line now post the same prices as the Standard of Louisiana at Smackover.

August 27—Effective at the opening of the market today, the Grayburg Pipe Line Company posted the Mid-Continent schedule for Somerset crude.

September 1—Effective at the opening of the market today the Magnolia Petroleum Company posted a reduction ranging from four to 10 cents on grades of Mid-Continent crude up to 38 to 38.9 degrees gravity, and increases ranging from two to 10 cents on grades above 38 to 38.9 to 44 and above.

No change was made in the California crude market except in the price of fuel oil. This was reduced 30 cents, making the posted price $1.35.

Current Postings

EASTERN STATES

	Sept. 4 1925	Sept. 5 1924
New York Transit	3.15	2.85
Bradford District	3.15	2.85
National Transit	3.05	...
Southwest	3.05	...
Eureka	3.00	...
Macksburg	2.80	...
Gains	2.70	...
Somerset medium	2.20	1.35
Somerset light	2.35	1.70
Cabell	2.10	...
Ragland	1.10	...
Corning	1.80	...

CENTRAL STATES

Illinois	$1.87	$1.62
Indiana	1.88	1.63
Lima	1.98	1.83
Plymouth	1.40	1.00
Princeton	1.87	1.62
Waterloo	1.00	1.10
Wooster	2.00	1.65

WESTERN KENTUCKY

Posted by Indian Refining Company for crude from Allen, Warren, Franklin, Davies, Barren,

	Sept. 4 1925	Sept. 5 1924
Cumberland and Monroe Counties		
36 and above	2.05	1.50
33 to 35.9	1.95	1.40
32.9 and below	1.85	1.30
Rosecrans Field		
36 to 36.9 gravity	$1.92	
37 to 37.9 gravity	2.00	
38 to 38.9 gravity	2.06	
39 to 39.9 gravity	2.16	
40 to 40.9 gravity	2.24	
41 to 41.9 gravity	2.32	
42 and above	2.40	

OKLAHOMA—KANSAS—NORTH TEXAS

Prairie, Sinclair, Texas, Gulf

28 to 28.9 gravity	1.15	1.10
29 to 29.9 gravity	1.25	1.10
30 to 30.9 gravity	1.31	1.25
31 to 31.9 gravity	1.39	1.25
32 to 32.9 gravity	1.47	1.25
33 to 33.9 gravity	1.55	1.50
34 to 34.9 gravity	1.63	1.50
35 to 35.9 gravity	1.71	1.50
36 to 36.9 gravity	1.79	1.50
37 to 37.9 gravity	1.87	1.50
38 to 38.9 gravity	1.95	1.50
39 to 39.9 gravity	2.03	1.50
40 to 40.9 gravity	2.11	1.50
41 to 41.9 gravity	2.19	1.50
42 to 42.9 gravity	2.27	1.50
43 to 43.9 gravity	2.35	1.50
44 Baume gravity and above	2.43	1.50
(Magnolia Petroleum Co.)		
Under 28 gravity	1.00	.90
28 to 30.9 gravity	1.31	1.00
30.9 to 31.9 gravity	1.39	1.10
32 to 32.9 gravity	1.47	1.10
33 to 33.9 gravity	1.55	1.25
34 to 34.9 gravity	1.63	1.25
35 to 35.9 gravity	1.71	1.25
36 to 36.9 gravity	1.79	1.25
37 to 37.9 gravity	1.87	1.25
38 to 38.9 gravity	1.95	1.25
39 to 39.9 gravity	2.03	1.25
40 to 40.9 gravity	2.11	1.25
41 to 41.9 gravity	2.19	1.25
42 to 42.9 gravity	2.27	1.25
43 to 43.9 gravity	2.35	1.25
44 Baume gravity and above	2.43	1.25

NORTH AND CENTRAL TEXAS

For Ranger, North Texas, Mexia, Powell, Richland, Wortham, Lytton Springs, Currie, Moran and Somerset crude.

	Somerset (Grayburg)	The Texas Co.	Humble O. & R. Co.
28 to 28.9	1.15	1.35	1.35
29 to 29.9	1.25	1.41	1.41
30 to 30.9	1.31	1.47	1.47
31 to 31.9	1.39	1.53	1.53
32 to 32.9	1.47	1.59	1.59
33 to 33.9	1.55	1.65	1.65
34 to 34.9	1.63	1.71	1.71
35 to 35.9	1.71	1.77	1.77
36 to 36.9	1.79	1.83	1.83
37 to 37.9	1.87	1.89	1.89
38 to 38.9	1.95	1.95	1.95
39 to 39.9	2.01	2.01	2.01
40 to 40.9	2.07	2.07	2.07
41 to 41.9	2.13	2.13	2.13
42 to 42.9	2.19	2.19	2.19
43 to 43.9	2.25	2.25	2.25
44 and above	2.31	2.31	2.31

SOUTH TEXAS

Mirando (Texpata)	1.00	.80
Mirando (Magnolia)	1.15	.75

GULF COAST

Grade "A"	1.50	1.35
Grade "B" at Blue Ridge, Hull and Pierce Junction	1.25	1.15

LULING

Based on Contract	1.05	.90

LOUISIANA-ARKANSAS

Caddo

38 gravity and above	1.95	1.35
35 to 37.9 gravity	1.85	1.25
32 to 34.9 gravity	1.75	1.15
Below 32 gravity	1.65	1.00
Homer		
35 gravity and above	1.75	1.35
33 to 34.9 gravity	1.65	1.25
31 to 32.9 gravity	1.55	1.15
Below 31 gravity	1.40	1.00
Cotton Valley		
All Grades	1.10	.80
Haynesville		
33 gravity and above	1.65	1.25
Below 33 gravity	1.55	1.15
Bull Bayou		
38 gravity and above	1.75	1.30
35 gravity to 37.9	1.60	1.15
32 to 34.9 gravity	1.45	1.00
De Soto crude	1.80	1.35
Crichton	1.60	1.15
Bellevue	1.65	1.25
Jennings	1.50	1.75
Vinton	1.50	1.75
Edgerly crude	1.50	1.35
Smackover		
Atlantic, Shreveport-Eldorado		
28 and above	1.30	...
27 to 27.9	1.25	...
26 to 26.9	1.20	...
25 to 25.9	1.15	...
24 to 24.9	1.15	...
23 to 23.9	.85	...
Below 23	.85	...
The Texas Company		
26 gravity and above	1.30	...
24 to 25.9	1.05	...
Below 24	.85	...
Standard—Gulf		
27 and above	1.30	.95
26 to 26.9	1.25	.95
25 to 25.9	1.20	.80
24 to 24.9	1.15	.70
Below 24	.85	.60
Louisiana Oil Refining Corporation		
27 and above	1.35	...
26 to 26.9	1.30	...
25 to 25.9	1.25	...
24 to 24.9	1.15	...
Below 24	.85	...
El Dorado		
33 gravity and above	1.65	1.35
Below 33 gravity	1.55	1.25
East Field (Calion)	.85	.60
Stephens District		
26 gravity and above	1.40	...
Below 26 gravity	1.20	...

WYOMING-MONTANA

Wyoming

Byron	2.25	...
Ferris	1.30	...
Elk Basin	1.90	1.45
Grass Creek	1.90	1.45
Rock Creek	1.75	1.20
Lost Soldier	1.35	...
Lance Creek	1.90	1.50
Mule Creek	1.75	.60
Notches	.65	...
Big Muddy	1.75	1.00
Osage	2.15	1.40
Hamilton Dome	1.80	1.10
Pilot Butte	1.75	.75
Torchlight-Greybull	2.00	1.40
Lander	.85	.45
Salt Creek		
(Midwest Refining Company)		
29 to 29.9 gravity	$1.48	$1.10
30 to 30.9 gravity	1.56	1.10
31 to 31.9 gravity	1.64	1.10
32 to 32.9 gravity	1.72	1.10
33 to 33.9 gravity	1.80	1.10
34 to 34.9 gravity	1.88	1.10
35 to 35.9 gravity	1.96	1.10
36 to 36.9 gravity	2.04	1.10
37 to 37.9 gravity	2.12	1.10
Montana		
Sunburst	1.55	.90
Cat Creek	2.15	1.45

NEW MEXICO

Artesia	1.45	...
Hogback	2.20	...

CANADIAN CRUDE

Oil Springs	2.45	2.55
Petrolia	2.38	2.48

*Bounty on Canadian crude is ¼ cent per gallon, or 26¼ cents per barrel.

SINCLAIR OILS

UNDER this Sinclair trade mark, there is marketed a wide range of petroleum products made to meet your exacting requirements—and shipped exactly as specified on your orders. Exactness is a quality of Sinclair Oils and Sinclair methods.

SINCLAIR REFINING COMPANY

NEW YORK
Sinclair Oil Bldg., 45 Nassau St.
Telephone: Rector 9320

CHICAGO
22nd and Rockwell Streets
Telephone: Crawford 2000

Cable Address: "Lucent"

AVERAGE DAILY PRODUCTION FOR U.S.

Mountain States

Daily average pipe line runs from all the fields in the Rocky Mountains during the past and previous weeks follow:

WYOMING

	Past Week	Prev. Week
Salt Creek	63,590	62,640
Grass Creek	3,860	4,800
Lost Soldier	5,120	6,270
Big Muddy	3,350	3,450
Rock Creek	2,775	2,660
Teapot	1,650	1,520
Poison Spider	1,250	1,390
Elk Basin	915	920
Osage	345	330
Mule Creek	700	720
Hamilton Dome	625	630
Lance Creek	620	625
Lander	320	340
Pilot Butte	300	300
Greybull	180	165
Notches	120	125
Ferris	115	100
Rex Lake	100	100
Totals	85,935	87,085

COLORADO

Craig	2,545	2,675
Fort Collins	1,390	1,450
Boulder	25	30
Florence	260	255
Rangely	110	100
Tow Creek	120	120
Totals	4,450	4,630

MONTANA

Cat Creek	3,500	3,515
Kevin-Sunburst	11,500	10,500
Totals	15,000	14,015

NEW MEXICO

Artesia	3,000	2,570
Rattlesnake	465	485
Hogback	510	550
Totals	3,975	3,605
Miscellaneous	200	200
Rocky Mountain totals	109,560	109,535

Kansas

Greenwood County	32,050	32,000
Rainbow Bend	10,680	11,350
El Dorado	15,360	15,175
Elbing-Peabody	5,540	5,450
Augusta and Douglas	3,040	3,150
Blankenship	3,650	3,350
Florence and Covert	1,900	2,000
Other Fields	28 650	26,790
Totals	100,870	99,260

California

Los Angeles, California—Daily average production in the California fields during the week ending August 29, compared with averages established the week previous, is given in the following table: (Figures in barrels).

Field—	Past Week	No. Prod. Wells	Prev. Week
Long Beach	109,700	530	109,000
Inglewood	108,500	135	107,000
Santa Fe Springs	52,000	339	52,000
Huntington Beach	48,100	314	48,000
Torrance	37,500	590	36,500
Rosecrans	25,400	74	29,000
Dominguez	29,500	60	30,000
Others	275,000		275,000
Totals	683,700		686,500

Oklahoma

	Past Week	Prev. Week
Burbank	54,040	54,100
Tonkawa	50,360	48,900
Bristow	43,500	43,500
Cromwell	28,050	28,880
Osage (outside Burbank)	32,850	32,700
Okmulgee	25,150	25,000
Cushing	21,180	21,000
Braman	19,900	19,835
Gilcrease and Papoose	12,280	12,250
Hewitt	15,940	16,000
Garber	18,300	13,800
Wewoka	11,940	11,800
Otoe	6,750	6,675
Stroud	5,000	4,390
Salt Fork (Thomas)	4,025	4,025
Other fields	104,890	103,795
Totals	454,155	443,690

Louisiana

Haynesville	12,690	12,665
Cotton Valley	11,575	11,000
Caddo light	8,785	9,225
Vinton	8,775	8,450
Homer	6,405	6,355
Bull Bayou	4,065	4,025
Bellevue	2,990	3,040
Caddo heavy	2,055	2,485
Evangeline	810	800
Elm Grove	450	550
Edgerly	575	590
Lockport (Lake Charles)	125	125
Anse La Butte	20	25
Totals	59,320	59,335

Arkansas

Smackover heavy	190,205	195,273
Smackover light	26,220	26,375
El Dorado	8,765	8,750
Stephens	1,785	1,790
Irma	1,460	1,495
Totals	228,435	233,685

Texas

NORTH CENTRAL

	Past Week	Prev. Week
Corsicana-Powell	45,481	45,135
Archer County	37,200	37,160
Big Lake-Reagan County	31,855	33,400
Wortham	24,300	25,500
Mexia	18,700	18,750
Electra	17,365	17,310
Burkburnett	14,195	14,200
Stephens County	14,135	14,180
Young County	11,265	11,490
Eastland County	9,810	9 825
So. Vernon-Wilbarger Co.	8,800	8,915
K-M-A and Iowa Park	5,805	5,770
Panhandle District	4,345	3,870
Richland	3,750	3,880
Moran-Shackelford County	3,260	3,365
Brown County	3,105	3,120
Callahan County	2,990	3,000
Mitchell County	2,455	2,275
Currie	1,130	1,175
Palo Pinto County	620	610
Montague County	440	445
Petrolia-Clay County	385	395
Coleman County	230	240
Baylor County	145	155
Throckmorton County	150	155
Scurry County	50	70
Thrall-Williamson County	55	50
Jack County	35	30
Total	261,456	264,465

GULF COAST

Hull	24,500	20,000
Orange	16,100	14,400
South Liberty	14,500	15,110
West Columbia	11,210	11,500
Goose Creek	9,400	9,500
Humble	4 450	4,275
Sour Lake	4,375	4,275
Saratoga	1,575	1,595
Batson	1,480	1,470
Mamon Mound	1,175	1,125
Spindletop	1,060	1,050
Blue Ridge	655	465
Big Creek	900	975
High Island	475	500
Pierce Junction	465	415
Markham	75	75
Barbers Hill	130	130
Dayton	50	50
Nacogdoches	35	30
Total South Texas	92,610	86,930
Total N. C. Texas	261,456	264,465
Luling	22,890	24,130
Lockhart (Lytton Springs)	11.137	11.400
Mirando	6,200	6,400
Somerset	2,430	2,460
Miscellaneous South Texas	505	520
Totals	398,228	396,305

Condensed U. S. Production for Twelve Months

(Stated in Barrels)

This table is compiled each week by The OIL WEEKLY, and shows daily production average for each state or section.

Daily average for month	*Mid-Continent	North Central Texas	Texas Coastal	Texas Total	Kansas	Okla.	Louisiana	Eastern States	Wyo. Mont Colo. New Mexico	Calif	Ark	Texas
June	799,230	260,785	74,335	375,310	74,260	464,175	62,660	105,750	125,735	628 400	157,165	1,993,465
July	815,830	254,665	75,445	378,365	81,545	479,620	63,855	107,175	124,305	620,175	148,655	2,003,695
August	861,640	254,520	75,700	377,045	85,765	521,355	62,595	107,000	123,895	619, 00	142,740	2,037,890
September	886,650	273,243	76,953	366,197	86,758	546,647	62,162	107,622	117 345	611,500	131,343	2,029,580
October	855,823	247 222	75,713	359,861	86,884	521,717	62 493	106,600	107,270	605,660	123,235	1,972,902
November	851,733	248 467	71,648	369 621	86,031	517,237	66,117	106,375	91,205	594,000	119,893	1,950,478
December	873 344	267,065	65,437	385,410	88,065	518,213	59 602	106,875	83,472	606,875	111,402	1,959,917
January	906,160	334 305	65,065	448,900	88, 90	483,465	56 520	106,200	78 435	602 600	106,280	1,970,350
February	861 130	292,796	63 885	405,195	88,790	479,545	56,825	105,125	87,710	592,375	106,085	1,927,680
March	839,200	301,795	83,800	434,410	84,965	452,440	58.030	100,550	90,900	605,775	112,425	1,939,520
April	836,110	294,040	94,215	435,035	84,360	457,710	57.700	98,250	91,845	602,800	209,840	2,037,545
May	835,350	295,695	100,205	447,080	93,610	446,040	60,945	101,140	91,492	609,200	419,770	2,269,280
June	834,927	286 095	94,514	432,121	88 220	450,637	59,977	103,675	87,477	642,500	349,962	2,249,296
July	807,949	272,119	94,669	414,673	96,967	438,863	60,328	104,360	99,726	671,440	247,574	2,133,932
August 1	801,995	272,050	93,008	411,688	92,300	437,645	59,495	103,500	101,025	682,500	241,280	2,129,433
August 8	786,150	262,015	90,100	396,625	90,280	433,855	59,976	104,200	105,845	676,600	258,465	2,125,846
August 15	800,762	262,722	86,730	394,788	94,490	443,550	60,955	104,500	109,255	673,000	236,150	2,116,688
August 27	810,415	264,465	86,930	396,305	99,260	446,690	59,335	104,800	109,535	686,500	233,685	2,136,110
Sept. 3	816,481	261,456	92,610	398,228	100,870	454,155	59,320	105,900	109,560	683,700	228,435	2,140,168

*Includes North Central Texas, Kansas, Oklahoma.

NOTE—Wortham, Corsicana-Powell and Mexia production included in North Central Texas.

Crude Demand Makes Difference in Prices Possible

(Continued from page 27.)

oil are firm at $1.10 to $1.15 at Wichita Falls.

The unsettled condition of the Mid-Continent light oil market has almost halted the trading in spot crude, other than that offered at sacrifice prices below current posted quotations of major companies. North Texas refiners are credited with having considerable storage oil on hand, and several plant owners are making special efforts to liquidate their stocks, but little success has been had lately. The Texas Company has discontinued its usual practice of picking up odd lots of spot crude from time to time in the North Texas district, while other major crude buyers are showing the same attitude toward storage oil. Premiums in Texas are inactive for the time being, except in instances where small plant owners made long-time contracts for daily runs.

Standard Oil Company of Louisiana announced, on August 27, a reduction of 25 cents per barrel on all Louisiana-Arkansas crudes except Smackover, Cotton Valley and Bellevue. Smackover had a reduction of 5 cents per barrel on the three higher grades of light oil posted on the following day, when an adjustment was made "in order to make, as near as possible, a parity in the different crudes," as explained in the Standard's announcement. In the adjustment, Homer, Haynesville, El Dorado and Caddo heavy crudes, which had been cut 25 cents on the day before, were raised 5 cents per barrel, making a net reduction of 20 cents per barrel from the prices which formerly obtained. The Standard's new price schedule has been adopted by all the major companies save The Texas Company at Smackover, which retained its gravity classification, differing from those of the other purchasers, including only three grades now quoted. The Texas Company's lower prices were effective August 31, while the other companies posted their cuts on August 27.

In some areas in Oklahoma and Kansas the impending cut had been anticipated to the extent that operations had been curtailed and field work lessened in speculative development areas.

This latest change in the crude price structure of the Mid-Continent, followed as it has been by other downward revisions in the Appalachian region and in the West, brings the posted quotation for high-gravity oil down to a level more in line with existing conditions in the refined oil market. There were many who saw in the advance posted by the Prairie last July, an upward trend that sooner or later would have to seek again a lower level, and these same students of the situation profess that had that advance not been made, prices might have been in a more stable condition to have been maintained throughout the remainder of the summer season, and possibly into the fall. This is but a conjecture, and certainly is open to argument from any angle.

Oklahoma-Kansas Increase

Production in both Oklahoma and Kansas is on the increase for the time. Developments in the Garber deep-sand area in Northern Oklahoma are being watched closely, due to the completion of several good wells and the increasing presence of salt water in the field. Five wells in the Garber area that were being deepened to hold up production, encountered salt water at lower horizons since last Friday, and now are making considerable water along with the oil. In all, 64 wells now are being put down to the deep pay in the Garber pool, which lays below 4000 feet. Production of the Garber pool is declining steadily.

Reductions in the Rocky Mountain States to conform to changes in the Mid-Continent grading are having a depressing effect on new field work, although operations in the proven areas have not been curtailed to any considerable extent as yet. Refinery operations likely will slow down, especially in Wyoming and Montana, to allow for the slack period being felt in the refined oil demand. It is expected that field work in the Rocky Mountain area will not show as pronounced a decline as in other parts of the country right now, inasmuch as the coming of fall will hasten the slowing down of operations on account of weather conditions, and as much new development as possible likely will be done before the setting in of the early winter season.

Effective at the opening of the market August 29, the Standard Oil Company of California reduced the price of fuel 30 cents per barrel at its Tidewater, El Segundo and Richmond refineries, and all points supplied therefrom.

Under the new posting, the price of fuel at Richmond is $1.25 per barrel, and at El Segundo and San Pedro, $1.20 per barrel.

Explanation for the cut by the Standard was that it was made to meet competitive prices in the fuel oil market.

COMPLETIONS FOR PAST WEEK IN U.S. FIELDS

Summarized Review of Field Results

State—	Completions This Week	Completions Last Week	Producers This Week	Producers Last Week	Gas Wells This Week	Gas Wells Last Week	Failures This Week	Failures Last Week	Initial Product'n This Week	Initial Product'n Last Week
Arkansas	55	32	29	22	13	5	13	5	13,015	6,410
California	21	57	17	49	..	..	4	8	9,917	42,283
Colorado	..	2	..	1	..	..	..	1	....	576
Indiana	1	4	..	..	..	1	1	3	....	.....
Illinois	1	7	1	5	..	..	..	2	50	27
Kansas	31	36	13	26	1	1	17	9	1,656	5,082
Kentucky	31	26	19	17	5	2	7	7	186	184
Louisiana	7	3	5	2	1	..	1	1	1,220	115
Montana	12	12	11	10	..	..	1	2	1,600	835
New Mexico	..	..	..	..	..	..	..	..	....	....
New York	..	8	..	8	..	..	..	..	....	18
Ohio	63	43	34	27	12	16	17	..	676	385
Oklahoma	90	91	45	53	7	32	38	6	14,358	11,047
Pennsylvania	8	75	..	62	6	7	2	6	....	154
Tennessee	2	3	..	2	..	1	2	..	....	....
Texas	163	160	104	98	3	5	56	57	71,743	13,882
West Virginia	35	33	10	15	17	11	8	7	110	281
Wyoming	18	7	17	7	..	..	1	..	1,855	575
Totals	537	599	305	404	64	81	168	114	115,086	81,854

NOTE—Following is the explanation of abbreviations, signs, etc., used in completion and wildcat reports: *—dry hole, abandoned well; ‡—salt water; †—junked and abandoned; ¶—million cubic feet of gas; aban—abandoned; bbls—barrels; b. s.—basic sediment; cas—casing; co—cleaning out; dk—derrick; dr—drilling; fsh—fishing; ft—feet; in—inches; loc—location; m—milling N. S. E. W.—North, South, East, West; r—reaming; sd—shut down; sdtr—sidetracking; sp—spudding; sr—straight reaming; std—standardizing; sw—salt water; td—total depth; ur—under reaming; wo—workover; wosr—waiting on standard rig.

Texas

GULF COAST

Company, Well, Location—	Initial Production Bbls.	Depth
Batson—		
East Batson Oil Co. Donohoe & Cashion 9	25	1187
Goose Creek—		
Gulf Prod. Co.'s Stateland 11 (wo)..	20	2325
Southern Exploration Co. Freeman 6 6, 19 acres	250	2775
Hull—		
Republic Prod. Co. Dolbear 85 (wo).	300	2120
Yount Lee Oil Co. Merchant 13....	350	4255
Mecom Oil Co. Taylor 4 (wo).....	5700	4027
Gulf Prod. Co. Phoenix Dev. Co. 55	1500	3465
South Liberty—		
Associated Oil Co. Deussen Fee 4 "A"	*	3230
The Texas Co. Simms Fee 6.....	132	3320
Gulf Prod. Co. A. Deussen Fee 11 "A"	1500	3460
No. 9	40	3320
West Columbia—		
George Hyde Prod. Co. Lee 1.....	¶	2365
Big Creek—		
Union Sulphur Co. Davis 34	*	800
Orange—		
Gulf Prod. Co. Wm. Winfree Fee 8 "A"	800	3560
Brownie-Babbette Oil Co. McLean 3 (wo)	50	3170
Monarch Oil & Ref. Co. Gallier 5 (wo)	15	3416
Gulf Production Co. Lee Hager Fee 2 (wo)	2000	4622
F. T. Peveto 10	*	4995

CALDWELL COUNTY

Humble Oil & Ref. Co.'s Cardwell 3	5000..	1580
Gulf Prod. Co.'s Riddle 2	250	1700
Cardwell 14	500	1803
Beaty 17	350	1510
Eagle Drilling Co.'s Cardwell 3....	500	1556

JIM HOGG COUNTY

O. W. Killiam's No. 13.....	250	2080
Martinez No. 11	100	2078
Alexander et al's Vela No. 1.....	50	2094

WEBB COUNTY

Rydal Oil Co.'s No. 13	80	1704
No. 14	100	1704
Crown-Central Oil Co.'s Garcia 9..	50	1630
No. 24	15	1809
Bruni	¶20	1721
Hughes' Puig 11	35	1526
Mortan et al's De la Garcia 1	¶40	2085

BEXAR COUNTY

Kerr and Andrew's Janszen 1.....	20	620

ARCHER COUNTY

Barkley-Meadows et al L. F. Wilson 11	100	1523
Burns-Maxson et al L. F. Wilson 7..	35	1443
J. E. Dale et al H. Wilmot 14.....	25	906
Gulf Prod. Co. H. L. Wear 2-A....	50	1283
E. S. Monohan 16	16	1293
Ted Harris et al Lester 1.....	*	1615
Jeffers & Newby J. D. Lyles 1.....	*	1754
Magnolia Pet. Co. J. F. Rogers 7..	5	1341
McCarty Oil Co. L. F. Wilson 8..	*	920
McElreath & Woods et al Coleman 1	*	190
Muse-Robertson et al Wilson 1-A....	45	1518
Murchison-Fain Oil Co. Richardson 1	*	1350
Oil Investment Co. J. E. Parrish 2..	30	1586
Panhandle Ref. Co. Rogers 4.....	*	1334
J. J. Perkins et al Anderson 4.....	80	1423
Philips Pet. Co. J. H. White 83....	20	1620
J. H. White 84	30	1413
Waite Phillips Co. T. B. Wilson 2-B	400	1713
L. F. Wilson 13	215	1511
L. F. Wilson 18	*	1541
D. L. Wolf 5	45	1391
D. L. Wolf 6	60	1390
D. L. Wolf 7	20	1389
D. L. Wolf 8	*	1456
Prairie O. & G. Co. Richardson 1-D	20	1307
Prairie & Sun Oil Co. J. F. Kovar 1	*	1441
Riner-Bailey et al L. F. Wilson 28-B	55	1621
Shappell Oil Co. Jackson 26.....	45	1804
Terminal Oil Co. Falls County Fee 1	*	1600
Texhoma O. & R. Co. Taylor 6-A..	20	1615
S. M. Gose 46	80	1601
The Texas Co. Hill 7	50	1362
Hill 8	25	1377
Richardson 8	80	1329
Wilson Drilling Co. et al L. F. Wilson 2	15	1524
White Eagle O. & R. Wilson 3....	*	1484

BURKBURNETT

Magnolia Pet. Co. Hugh Reilly 120	15	500

ELECTRA

Arco Oil Co. Burnett 2	10	349
Fisher & Gilliland Fisher 5-A	*	1569
Humble O. & R. Co. Douglas 19...	*	1974
J. P. Rayzor et al Waggoner 1	*	2005
Rio Bravo Oil Co. Waggoner 7-A..	90	1412
Waggoner 11-G	*	1095
Waggoner 3-C	*	1185
Waggoner 3-D	10	1568
Waggoner 2-GC	40	1005
Texhoma O. & R. Co. Waggoner Bros. 2	60	1771

IOWA PARK AND K-M-A

Bailey-Deluth et al Jackson 1	*	1926
Fidelity Oil Corp. Peeler 13	60	1773
Peeler 14	*	796
Peeler 15	60	1769
K-M-A Oil Co. Munger 19	10	1638
Maer-Staniforth et al A. & K. 6....	*	1800
A. & K. 7	70	1652
O'Donohoe & Gates A. & K. 7-B..	20	1649
A. & K. 9-B	60	1649
Petroleum Prod. Co. A. & K. 12-B	10	1650
The Texas Co. Newt Maer 16.....	30	1775
White Bros. et al Mitchell 2	*	1315

YOUNG COUNTY

Fultz & Albright McLaren 1	*	2420
Hinson et al Morrison 1.....	†	2085
Humble O. & R. Co. Kilcrease 3...	15	1004
Madden et al Hamilton 1	*	1080
Miller et al Hume 1	*	4288
Murchison-Fain et al Campbell 16-D	25	975
Campbell 17-D	*	1030
Murchison-Fain & Marland Oil Co. Campbell 2-E	*	1042
Petroleum Prod. Kilcrease 3	*	1035
Roeser & Pendleton Kunkel 1	*	1260
Snowden & McSweeney Henderson 1	75	2545
Texas Unity Oil Co. Hausler 8 ..	80	1081
Weaver & Pois Dunagan 4	300	1012

SOUTH VERNON

Barkley-Meadows et al Bond 1	*	1343
Humble O. & R. Co. Castlebury 19.	120	2325
Stephens 29	400	2390
Stephens 31	125	2290
Petroleum Prod. Co. et al Dill 5 ...	165	2300
Ray-Massie et al Bond 7	75	1302
Bob Waggoner et al Bond 3	20	1295

EASTLAND COUNTY

Landreth Prod. Corp. Wilkerson 1	*	4032
Robert Oil Corp. McMinn 5	15	1500
Pettit 4	200	1485

STEPHENS COUNTY

Quakins Pet. Co. Bruce 3	*	2105
Strawn Pet. Co. Stuart 24	*	2500
Tidal Oil Co. Mayhall 1	*	3746
Texas Pacific Coal & Oil Co. J. J. Hand 2	¶1½-400	3710

SHACKELFORD COUNTY

Hays et al Leshber 1	10	446
Hope Pet. Co. Poindexter 1	*	1325
Tannehill et al Myer 5	10	1008

Kansas

Company, Well and Location	Initial Production Bbls.	Depth
Butler County—		
Skelly Oil Co. Van Winkle 4	15	2749
Chase County—		
Shelby Oil Co. Shambaugh 3.....	150	2477
Chatauqua County—		
Hatlock et al A. G. Reed 1.....	*	1685
Commanche County—		
Titus et al Croch 4.....	*	3699
Cowley County—		
Wakefield et al Guthrie 1.....	*	3524
Marland Oil Co. Wright 4.....	*	2930
Phillips and Marland E. Nelson 4...	600	3233
T. Snyder 5-T	200	3249
Lewis Oil Co. Bells 1.....	*	3557
Phillips Petroleum Co. Fall City 25	35	2784
Elk County—		
Pure Oil Co. Chaffine 5.....	50	1367
Greenwood County—		
White Eagle Kipfer 4.....	15	2162
Titus et al Prather 4.....	*	....
Prather 13	*	650
Tidal Kipfer 4	40	1821
White Eagle McGilvery 7.....	*	1819
R. G. Gillespie Miller 2.....	*	1894
Mission Dales 1	400	2535
Greenland Green 12	70	2393
Fisher, Lauck & Moore Long 1	*	1855
Kettle et al Hennebaker 1.....	*	1704
Polhamus et al Marshall 10.....	55	2250
Sullivan et al Freeman 1.....	*	2323
C. & C. Leasing Co. Boone 2.....	¶2	1647
Magnolia Pet. Co. Prather 1.....	*	2807
Harvey County—		
Phillips Pet. Co. Scoby 1.....	*	2770
Lyons County—		
Schwartz et al Childers 2.....	30	1901
Landon et al Perdroja 2.....	*	1928
Sumner County—		
Marland Oil Co. Lindsey 1.....	*	3547
National Refining Co. Hartwell 1...	*	3535
Woodson County—		
Curtis et al Culgey 1.....	*	1547

Oklahoma

Kay County—		
Wentz Oil Corp. School Land 1...¶2½		2038
Comar Oil Co. Biddle 2.....	*	....
Marland Oil Co. Hockstater 4.....	200	2975
Twin State Siler 2.....	540	4317
T. B. Slick Suiter 1.....	*	4340
Wentz Oil Corp. Mahoney 1.....1865		4254
Wertz Oil Corp. McKee 51 1056		4300
Comar Oil Co. Beverlin 17-W.....1867		4230
Noble County—		
Gypsy Oil Co. Shawver 92.....	20	4237
Pawnee County—		
Magnolia Robodeaux 4	*	4146
Miller 6	700	4100
Whitemule 1-C	*	4426
Selby-Gypsy Mullendore 20	365	2872
Deep Rock O. & G. Co. Drake 1....	*	2850
Haley, Garber & Pulse Russell 1...	*	2885
Chas. H. Burton Schuler 1.....	*	3220
W. Blake et al Lenox 1-A.....	*	2185
Garfield County—		
Roxana Pet. Corp. Wolfe 1-W....1160		4478
Cosden and Marland School Land 41	*	2655
Sinclair O. & G. Co. Walker 4....	*	2349
Walker 22	40	2346
Davis 2	200	1948
Champlin Ref. Co. Allen 2-B.....	10	1501
Sinclair O. & G. Co. Kisner 8.....	12	2337
Payne County—		
Josey Oil Co. Laughlin 7.....	245	3400
Amerada Taylor 1	*	1121
New England O. & P. L. Co. Broyles 1	200	1964
Shaffer O. & R. Co. Laughlin 12...	140	3508
Laughlin 14	280	3417
Lincoln County—		
Magnolia Sukovaty 2-F	612	3434
Amerada Olney 1	*	4777
Tulsa County—		
Gled Oil Co. Harjo 1.....	*	2600
Holmes et al L. Island 3.....	120	1920
Pennock Oil Co. et al McKee 8.....	265	2400
Elliott et al Stansbury 1.....	5	1707
Riverland Oil Co. Bowlin 3.....	*	2380
Creek County—		
Sapulpa Fuel Co. Mitchell 2.....	*	2707
McClung et al Barnett 1.....	15	1800
Tibbens O. & G. Co. Unallotted 14	¶5	1193
Gladys Bell Johnson 1.....	*	2960
Wilcox O. & G. Co. C. A. Scott 1..	15	3390
Okmulgee County—		
Olean Pet. Co. Hogan 6.....	320	2615
J. A. Simmons Kanard 1.....	*	2007
Magnolia Thomas 8	525	2850
Gypsy W. Hill 1-A	*	2706
Marion L. Freeman 4.....	¶¼	724
American Supply Co. Z. Colbert 3...	*	1480
L. J. Misner W. Francis 6.....	100	1492
W. Francis 7	10	825
Papoose C. Osborn 21.....	450	2203

Company, Well, Location—	Initial Production Bbls.	Depth
Seminole County—		
Guy Fisher et al J. Lena 1	*	3560
Pure Oil Co. Jackson 5	40	3427
Gypsy & Laurel Wisner 2	26	3473
Hughes County—		
Independent M. Anderson 2	*	....
Carolina 3	50	3395
Carolina 4	40	3372
Robinson & Amerada W. Carter 8	645	3311
Empire G. & R. Co. R. Burner 1	*	1602
Gypsy Proctor 2	501	3268
Proctor 4	67	3281
J. W. McCullough G. Jefferson 2	625	3287
Independent et al M. Long 1	¶35	2297
Phillips Pet. Co. Jefferson 1	*	3335
Pontotoc County—		
Craig et al Starrett 1	*	600
Grady County—		
Stogner Duke 1	¶8	2400
Stephens County—		
Commercial Pet. Co. Fobb 1	500	1763
Carter County—		
Humble O. &. R. Co. Jordan 1	12	3540
Carpenter 4	250	2655
Coline Oil Co. Higgins 2	110	1828
Amerada Pet. Co. Geo. R. Fish 2-A	*	1383
Wolverton 4	*	1098
Osage County—		
F. A. McClintock No. 1	*	2705
Amerada No. 1	*	2200
Devonian Oil No. 2	¶3½	1939
E. L. Conley et al No. 3	25	2450
Lewis Oil Co. No. 1	*	2280
Atlantic Oil Co. No. 4	*	2800
Knipp et al No. 1	*	2354
Pure Oil Co. No. 2	*	613
Tidal-Osage No. 9	100	2173
Amerada No. 1	*	2960
Owen-Osage No. 336	¶9	1815
Midland Oil Co. No. 1	*	3454
Olean Pet. Co. No. 6	30	2282
Owen-Osage No. 338	¶¾	1964
No. 340	*	1942
Muskogee County—		
H. G. Wells F. Drittenden 1	*	840
Wilson D. Smith 4	*	1450
Wagoner County—		
A. G. Hazlett G. Wheat 1	*	....
Kenmaker McIntosh 3	*	675

California

Company, Well, Location—	Initial Production Bbls.	Depth
Baldwin Hills-Inglewood—		
Standard Oil Co.'s L. A. Investment 1-27	1800	2666
Standard Oil Co.'s L. A. Investment 1-28	1500	2649
Standard Oil Co.'s L. A. Investment 1-24	3040	2629
Associated Oil Co.'s Vickers 20, wo	35	2783
Petroleum Securities Co.'s Cone 11	600	2595
Torrance—		
C. C. M. O. Co.'s Del Amo 81	1000	3500
George F. Getty's Crail 27, wo	75	3319
General Pet. Corp.'s Carson 10	35	3350
C. C. M. O. Co.'s Del Amo 37	260	3685
California Pet. Corp.'s Redondo 3	73	3350
C. C. M. O. Co.'s Del Amo 106	100	3544
Standard Oil Co.'s Ellingwood 2	*	4750
Long Beach—		
Black and Gold Royalties Co.'s No. 1	124	4426
Petroleum Midway Co.'s Foster 1	17	2970
Huntington Beach—		
Standard Oil Co.'s H. B. 34	400	4343
Rideout Heights—		
California Pet. Corp.'s Witte-Vining 1	*	4682
Montebello—		
H. L. Whiston's Bicknell 1	*	5003
Midway—		
Honolulu Consolidated Oil Co.'s No. 12	200	3324
Pacific Oil Co.'s No. 17	1500	4380
McKittrick—		
United Oil Co.'s No. 6	175	1387
South Kern River—		
St. Helens Pet. Co.'s China Grade 1	*	2750

Mountain States

WYOMING

Company, Well, Location—	Initial Production Bbls.	Depth
Salt Creek—		
Midwest Oil Co.'s No. 26A SW¼ 11-40-79	117	2289
No. 34A NE¼ 20-40-79	74	1762
No. 36A SE¼ 27-40-79	75	1570
No. 19A NW¼ 23-40-79	80	1690
No. 1 SW¼ 35-40-79	275	1183
Midwest Oil-Wyoming Associated's No. 12A NW¼ 36-40-79	100	1660
No. 19A NE¼ 36-40-79	125	1694
Wyoming Oil Fields Co.'s No. 18 SW¼ 23-40-79	150	1150
No. 23 NW¼ 23-40-79	100	1180
Wyoming Associated Oil Co.'s No. 3A SE¼ 35-40-79	100	1579
No. 36A NE¼ 23-40-79	209	1490
Utah Oil Refining Co.'s No. 32A NW¼ 30-40-78	50	1970
Mountain & Gulf Oil Co.'s No. 11A NE¼ 13-40-79	75	2415
Prairie Oil & Gas Co.'s No. 11 20-39-78	100	2835
No. 12 30-40-78	75	2300
Mosher-Dyke Oil Co.'s No. 1 33-40-79	40	2050
Sage Creek—		
Union Oil Co.'s No. 1	*	....
Lost Soldier—		
Prairie Oil & Gas Co.'s No. 68 11-26-90	110	....

MONTANA

Company, Well, Location—	Initial Production Bbls.	Depth
Kevin-Sunburst—		
56 Petroleum Co.'s No. 4C NW¼ 32-35-1	25	....
Big West Oil Co.'s No. 12A NE¼ 31-35-1	700	1445
No. 1L SE¼ 27-35-2	*	1468
Adams Oil Co.'s No. 1K SE¼ 31-35-1	40	....
Ferdig et al's No. 1L NE¼ 34-35-2	40	....
Essex Oil Co.'s No. 7B SE¼ 30-35-1	25	....
Western Drilling Co.'s No. 3 SE¼ 30-35-1	25	1455
Queen City Oil Co.'s No. 15M NW¼ 4-34-2	400	1500
No. 17M NE¼ 5-35-2	100	1494
Ohio Oil Co.'s No. 1K SE¼ 15-35-2	60	1533
Cat Creek—		
Frantz Oil Corp.'s No. 10H NW¼ 10-15-29	25	1327
Mid-Northern Oil Co.'s No. 9C SW¼ 12-15-29	160	1275

Louisiana

Company, Well, Location—	Initial Production Bbls.	Depth
Bellevue Field—		
Bliss & Wetherbee's Crawford 1, 14-19-11	*	476
Cotton Valley Field—		
Humble Oil & Ref. Co.'s Bodcau B-20, 16-21-10	125	2555
Weaver-Looney 3, 25-15-10	65	2560
Ohio Oil Co.'s Gray 14, 26-21-10	150	2570
Total, 3 wells	340	
Spring Hill Gas Field—		
Fortuna Oil Co.'s Maynor 2, 34-23-10 Webster Parish	¶30	2634
Urania Field—		
Rowe et al's Hardtner 1, 19-10-2e	80	1572

Arkansas

Company, Well, Location—	Initial Production Bbls.	Depth
Smackover Field, Ouachita County—		
J. E. Crosby's Berry 11, 33-15-15	1200	2375
Empire Gas & Fuel Co.'s Laney 5, 3-15-15	*	2590
Giles et al's Nelly 3, 26-15-16	60	2075
Gulf Ref. Co.'s Scott 2, 34-15-15	¶15-100	2645
Goodwin 9, 32-15-15	¶40	2558
Goodwin 10, 32-15-15	250	2400
John Goodwin 8, 32-15-15	200	2405
Houston Oil Co.'s Reynolds 4, 27-15-15	¶35	2611
Howell et al's Williams 6, 3-16-15	2000	2380
Marine Oil Co.'s Hayes 8, 4-16-15	¶40	2572
Snyder 5, 34-15-15	¶20	2523
Phillips Pet. Co.'s Joyce 13, 33-15-15	1000	2450
Pure Oil Co.'s Brister 5, 28-15-15	*	2425
Brister 9, 28-15-15	1000	2435
Roxana Pet. Co.'s Avera 2, 35-15-15	*	2500
Simms Oil Co.'s Johnston 2, 34-15-15	¶25	2580
Sinclair Oil Co.'s Berry 12, 33-15-15	600	2445
Berry 13, 33-15-15	800	2421
Standard Oil Co.'s Umstead 26, 32-15-15	¶5-70	2595
Sun Oil Co.'s Johnson 7, 30-15-15	200	2590
Texas Co.'s Berry 12, 33-15-15	600	2385
Nelly 2, 27-15-16	10	2054
Smackover Field, Union County—		
Broderick & Calvert's Bradford 1, 8-16-15	150	2395
Crawford & Sebastian's James 9, 6-16-15	*	2570
Federal Pet. Co.'s Flenniken 6, 6-16-15	1500	2576
Lawton A-10, 10-16-15	¶40	2710
Goodman & Tippett's Houston 1, 12-16-16	*	2600
Gulf Ref. Co.'s Alphin 14, 2-16-15	*	2595
Fagg 3, 7-16-16	50	2350
John Goodwin A-8, 5-16-15	125	2375
Hardy Murphy 34, 4-16-15	200	2368
Houston Oil Co.'s Hinton 9, 5-16-15	¶40	2525
Howell et al's Williams 6, 3-16-15	2500	2380
Humble O. & R. Co.'s Lawton A-3, 7-16-15	*	2660
Lawton B-1, 7-16-15	*	2625
Pate 5, 10-16-15	*	2565
Johnston Drlg. Co.'s Anderson 4, 1-16-17	25	2270
Keen & Woolf Oil Co.'s J. S. Murphy 1, 9-16-15	*	2425
Lion Oil & Ref. Co.'s LeCroy 1, 7-16-15	*	2635
Lawton A-7, 10-16-15	¶10	2590
Murphy C-8, 8-16-15	150	2430
Magnolia Pet. Co.'s Campete-Campbell 5, 12-16-17	75	2298
Marine Oil Co.'s Hayes 8, 4-16-15	¶40	2575
Mazda Oil Co.'s Lawton R-3, 10-16-15	¶12	2620
Lawton R-4, 10-16-15	¶20	2738
Ohio Oil Co.'s Pate 11, 10-16-15	¶25	2550
Rowe-Daniels Synd.'s Tatum 3, 7-16-15	*	2190
Shreveport Oil Corp.'s Umstead 4, 4-16-15	200	2370
Southern Crude Oil Purchasing Co.'s Lyall 5, 3-16-15	¶40	2560
Thurman et al's Wingfield 2, 5-16-15	175	2380
Wingfield 3, 5-16-15	200	2376
Texas Co.'s J. Berry B-5, 8-16-15	400	2475
Whittaker et al's Berg 2, 27-15-17	25	2410
Winger et al's Lawton 1, 10-16-15	*	2440
Total, 54 wells	¶407-13,865	
El Dorado East Field—		
J. E. Stock's Ezell 1, 18-17-14	150	a2869

a-Deep Sand discovery well in El Dorado East field (Calion).

Eastern States

PENNSYLVANIA

Company, Well, Location—	Initial Production Bbls.	Depth
Greene County—		
Peoples Natural Gas Co. John Fox 1	¶2	....
Hudson Fox 1	*	....
Philadelphia Oil Co. Peter Fry Hrs. 1	¶2	....
H. E. Milliken & Co. G. W. Hoskinson 2	¶1	997
W. M. Snyder & Co. D. K. Phillips 1	¶2	....
Furbee Oil & Gas Co. Jasper Furbee 1	¶2	....
Manufacturers Light & Heat Co. D. K. Phillips 1	¶2	....
Jesse L. Gerard Gerard 26	*	....

WEST VIRGINIA

Company, Well, Location—	Initial Production Bbls.	Depth
Kanawha County—		
United Fuel Gas Co. Vernon Cobb 1	¶½	....
C. Halstead 1	¶1	....
Jerry Combs 1	¶1	....
Tamico Oil & Gas Co. S. M. Pike heirs 4	¶2	....
S. M. Pike heirs 5	¶2	....
S. M. Pike heirs 6	¶2	....
Putnam County—		
Kirtley & Co. Chesapeak & Ohio Rairioae 2	9	....
Charleston-Dunbar Gas Co. G. A. Maddings 1	*	....
Wolver Oil Co. H. H. Pine 2	8	....
Holt & Wolfe W. H. Lee 1	*	....
Anchor Oil Co. H. Swendler 1	7	....
Harrison County—		
Salem Oil Co. J. H. Benedum 3	¶7	....
E. P. Cogar & Co. E. P. Cogar 1	¶2	....
Raccoon Gas Co. S. E. Swiger 1	¶2	....

Company, Well, Location—	Initial Production Bbls.	Depth
Vesper Oil & Gas Co. Nora B. Lanhan 1	¶2	....
Hope Natural Gas Co. Loyd Harbert 1	3	....
Doddridge County—		
A. Ahouse A. Ahouse 5	10	....
C. H. Piggott B. F. Heflin 2	50	....
Maxwell & Henderson E. P. Burbridge 1	5	....
Wetzel County—		
Pittsburgh & West Va. Gas Co. Steve Morgan 5	¶2	....
Consolidated Oil Co. Steve Morgan 4	*	....
Rosenbloom Bros. Mary Harker 1	*	2845
Lewis County—		
Hope Natural Gas Co. Bertha P. Rhodes 2	¶¼	2995
Carnegie Natural Gas Co. F. B. Rittenhouse 1	¶¼	....
Boone County—		
Owens Bottle Machine Co. Coal River Mining Co. 24	¶1	....
Carter Oil Co. Herschel Stollings 1	¶1	....
Ritchie County—		
Southern Oil Co. John Scott 1	*	....
H. L. Lambert John Pointer 1	*	....
Roane County—		
G. L. Cabot Harless 1	¶½	....
W. T. Arnett 1	*	....
Marshall County—		
Manufacturers Light & Heat Co. S. B. Higgins 1	10	2500
Wood County—		
Drake Oil Co. Jemmima Drake 35	5	....
Wirt County—		
W. C. Patterson M. A. Donoho 19	2	....
Pleasants County—		
Hall & Co. W. B. Wright 2	*	....
Mingo County—		
Public Gas Corp. Henry Olsterman 9	¶3	....
Barren County—		
Wood Oil Co. John Church 7	15	....
Mary Church 2	6	....
Houck 3	2	....
Consolidated Gas Co. Depp 6	10	....

KENTUCKY

Company, Well, Location—	Initial Production Bbls.	Depth
Jim Jones 1	¶1½	....
Ziegler Bros. T. Mansfield 7	10	514
T. Mansfield 9	15	476
Hiland Oil Co. Cassidy 7	12	....
Harrington & Norris Bros. Hutchinson 2	5	....
Star Oil Co. Ritchie 33	5	....
Ritchie 34	5	....
Craig & Co. Smith 15	5	....
Porter & Co. Nichols 1	¶1¼	....
T. L. Gorby Chamberlain 3	4	....
Owensboro District—		
Pennsylvania-Indiana Oil Co. Abe Howe 6	9	....
C. E. Daugherty Widow Crowe 6	20	....
Spice Knob Oil Co. Bert Thompson 4	4	....
Randolph & Co. Amma Griffith 1	*	815
Warren County—		
L. C. Madison Stewart 1	4	500
Samuel Katz Jennie Briggs 12	8	1100
Richpond Oil Co. Holland 1	*	500
Lawrence-Johnson Counties—		
Union Gas & Oil Co. C. K. Dobyne No. 2 tract 3	15	782
Townsend & Garrison W. Bond 1	*	....
Johnson-Magoffin Counties—		
R. G. Gillespie F. M. Moore 5	3	....
Oliver Jenkins Martha Cooley 12	5	....
Allen County—		
Unknown parties Sam Berion 1	*	....
Sutton & Co. Kennedy 2	*	....
Wayne County—		
Shearer, Marsh & Co. J. A. Brown 3	20	....
Simpson County—		
Small & Tully Hogan 10	4	530
Cumberland County—		
Erie, Pa. parties B. M. Thurman 1	*	543
Greenup County—		
Patton & Deardorff Head of Grassey Creek 1	*	....

TENNESSEE

Company, Well, Location—	Initial Production Bbls.	Depth
Macon County—		
Jim Casson Jim Harp 1	*	....
Overton County—		
W. H. Boeswell Mitchell Creek 1	*	....

SOUTHEASTERN OHIO

Company, Well, Location—	Initial Production Bbls.	Depth
Washington County—		
W. F. Meister & Co. John Wolfert 13	¶1½	....
Lyon & Co. A. F. Male 1	¶1	1451
Muskingum Gas Co. J. E. Leasure 1	¶1¼	....
S. C. Turner John Holshu 7	2	....
Oneida Pet. Co. J. C. Bosworth 25	2	....
O. C. Reckard & Co. F. F. Dana 9	2	....
Citizens National Bank of Marietta A. A. Noland 15	2	....
Ross Bros. Charles Pugh 1	2	....
George White & Co. J. Hutchinson 2	*	....
Schultz & Polland J. C. & R. F. Cunningham 1	*	1533
Heldman & Co. T. E. Williams 3	*	....
American Gas Co. Ethel Kirkbride 1	*	....
J. T. Dillon & Co. W. H. Wickens 32	*	....
Jefferson County—		
Boyce & Boyce Corkle Heirs 1	*	....
W. C. Glenn 3	2	....
Noble County—		
Nord Oil & Gas Co. N. & H. Williams 2	5	....
Monroe County—		
Cooper & Ward J. W. Holtsclaw 1	*	....
Harrison County—		
William Muir Oil Co. John W. Moore 1	*	....

CENTRAL OHIO

Company, Well, Location—	Initial Production Bbls.	Depth
Athens County—		
W. Ronhausen & Co. O. C. Chapman 1	2	....
Watkins & Co. E. J. Jones 1	*	....
Ohio Fuel Supply Co. P. D. Patton 1	¶½	....
Dunham Bros. Tim Russell 1	*	1165

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CENTRAL OHIO

Company, Well, Location—	Initial Production Bbls.	Depth
Shady River Oil Co. F. W. Chapman 11 . . .	¶¼	....
Licking County—		
Edward H. Everett Co. U. G. Porter 3 . . .	82	....
E. J. Edmonds & So. Alex Forgy 1	6	....
Detex Oil & Gas Co. Otto Franks 3	2	....
Burke-Golf Oil Co. Factory lot 1..	¶¼	....
Wayne County—		
Arthur & Mills J. Fetzer 1	¶1¼	....
Logan Gas Co. Adelbert Moine 1 ..	¶½	....
East Ohio Gas Co. J. Sherrick 1 . . .	*	....
Glen Harmon & Co. John Sheppard 1 . . .	*	3250
Perry County—		
Carter Oil Co. D. V. Purvis 5.	10	....
Sunday Creek Coal Co. Fee 129. . . .	110	....
John Denman & Co. Pat Commiskey 15 . . .	4	....
Meigs County—		
Meigs & Summers William Singer 1	5	....
Ohio Fuel Gas Co. Emma Williams 1 . . .	5	....
Simon Tefow & Co. Grace Gossett 1	4	....
Medina County—		
E. R. Edson Sons Co. Carl Packard 20 . . .	1	395
Eppencur-McClelland & Co. Simon Browand 1 . . .	*	....

Company, Well, Location—	Initial Production Bbls.	Depth
Hocking County—		
Ohio Fuel Oil Co. E. D. Schaal 1..	*	....
Evans Oil & Gas Co. National Fireproofing Co. 4 . . .	*	....
Knox County—		
East Ohio Gas Co. W. E. Tesserand 1 . . .	¶3¼	....
Mary A. Nichols 1	*	....
Coshocton County—		
Ohio Fuel Oil Co. Fair & Co. 13....	30	....
Ashland County—		
Logan Gas Co. Howard Bookman 2 . . .	¶¼	....
Holmes County—		
Empire Gas & Fuel Co. Ulen S. Davenport 1	¶1½	....
Fairfield County—		
A. D. Hufford & Co. George W. Groff 1 . . .	¶2	....
Lorain County—		
Logan Gas Co. E. & G. Reisinger 1	*	....

NORTHWESTERN OHIO

Company, Well, Location—	Initial Production Bbls.	Depth
Hancock County—		
Base Line Oil Co. E. L. Latschaw 5	100	1500
B. Porter & Co. J. H. Haley 21....	25	1317
Porter & Hovis Lemuel Aurand 19	15	1314
Temple & Keiser P. H. Powell 3..	2	1320
Wood County—		
Barclay Perry & Co. J. A. Foos 1..	25	1547
John E. Welton & Co. William Budd 4 . . .	6	1314
Charles F. Zeising & Co. Peter Behnsen 1 . . .	5	1317
Speck, Twining & Lechner Mrs. M. Jamerson 1 . . .	4	1272
Hardin County—		
Boston-Southwestern Oil & Gas Co. Howard Evans 1 . . .	55	1497
Roundhead Oil & Gas Co. M. M. Austine 2 . . .	40	1495
Van Wert County—		
Celina Petroleum Co. Brehm Bros. 5	30	1290
Paulding County—		
U. S. A. Oil Co. A. M. Bailey 5..	25	1447
Mercer County—		
M. P. Colt W. M. Miller 8	10	1267
Allen County—		
Carman, Botkins & Co. Jesse Miller 4 . . .	5	1337
Auglaize County—		
Cliff Blair & Co. Mrs. S. Whetstone 3 . . .	1	....

INDIANA

Company, Well, Location—	Initial Production Bbls.	Depth
Sullivan County—		
Billman & Co. C. Worner 1	*	870

ILLINOIS

Company, Well, Location—	Initial Production Bbls.	Depth
Clark County—		
Nettie Baker W. C. McBride Inc. 8	50	1417

WILDCATS FROM ALL SECTIONS

Central West Texas Wildcats

COMPLETIONS

Company, Well, Location—	Initial Production Bbls.	Depth
Brown County—		
Canyon O. & G. Co. Ellsberry 4...	*	1416
Gillman et al Newton 15	110	1289
J. K. Hughes et al Aldredge 2	*	1330
Moore 1	¶6	1090
Prairie Oil & Gas Co. A. F. Armstrong 1	*	3484
Callahan County—		
Lowe-Delaney & Carter Townsite 1	70	1425
Nichols et al Davis 1	*	2479
Coleman County—		
Duncan et al Gray 1	10	2558
Mitchell County—		
The California Co. Womack 1	150	3052
Missouri Life Co. Fee 1	150	3075
H. C. Miller 1-A	150	3073
Magnolia Pet. Co. Mary Foster 2..	150	2870
Coleman 1-dd	7	3255
Palo Pinto County—		
Burton-McKee Oil Corp. Strawn Coal Fee 4	*	3800
Pecos County—		
Gulf Prod. Co. White-Baker 1	*	4280
Reagan County—		
Big Lake Oil Co. University 20 3700		2930
University 39 5700		2880
University 40 1750		2900
Gulf Prod. Co. University 2	*	3255
Texon Oil & Land Co. University 20.1965		2909

DRILLING REPORT

BROWN COUNTY — Adams-Moody's Newton 1, ur 1925 ft. Anderson-McCamey's Williams 1, dr 520 ft. Cal-Bro Oil Synd.'s Prater 2, sd 625 ft. Gillman-McMurray's Henry 1, dr 950 ft; Teston 7, dr 995 ft; Moore 6, spudding. Gray et al's Lewis 1, lcn. J. K. Hughes et al's Moore 2, machine. Halmack Oil Co.'s Hubbard 1, set cas 585 ft. Howell & Houseman's Helms 1, dr 1510 ft. Infield Pet. Co.'s Graham 1, rig. Keough et al's Angel 1, rig. McCamey et al's Clark 1, rig. Mahlstedt-Mook Oil Co.'s Madison 1, dr 250 ft. Mendenhall et al's Newton 10, rig. Moore et al's Baxter 4, sd hfo 1293 ft; Kilgore 1-A, spudding. Mook-Wakefield's Newton 3, dr 945 ft; Wright 1, dr 1215 ft. McLester Oil Co.'s Clark 1, dr 825 ft. Moore-Wilson's Gafford 6, sd 1237 ft; Gafford 7, dr 1210 ft; Gafford 8, rig. Olympia O. & R. Co.'s Gilliam 3, dr 1645 ft. Schaffner & Wilson's Prater 1, dr 920 ft. Slick et al's Windham 1, dr 1330 ft. Stone & Co.'s Gunn 3, lcn.

CALLAHAN COUNTY — Brannon & Murray's blk 85, Townsite 1, rig. Bowden-Dehurst's Coats 1, dr 615 ft. Canyon O. & G. Co.'s Barr 2-A, dr 430 ft. Cranfill-Reynolds' blk 90, Townsite 1, rig; Townsite 1, showing trace oil 1425-27 ft. French-Lewis' Hinds 1, spudding. Harris-White blk 25, Townsite 1, dr 930 ft. Lowe-Delaney & Carter's blk 76, Townsite 1, rig. Mitchell-Shadbolt's Childress 1, lcn. Mogul Oil Corp.'s McDermott 1, dr 525 ft. Moore et al's blk 7, Townsite 1, dr by bit 920 ft. Moore et al's White 1, rig. Neeb & Stone's blk 10, Townsite 1, spudding. Petroleum Exploration Co.'s Smart 1, lcn. Quaker Oil Co.'s Gilliland 1, rig. Redmond et al's Atchley-Chrane 1, sd 500 ft. Shults et al's Stahan 1, spd and sd. Slick et al's Haley 1, dr 945 ft. Stacey-Vaughan's Hall 1, lcn. Sudderth et al's Thorn 1, machine. Urban et al's Finley 1, dd, co 2365 ft. Wakefield et al's Derrington 1, machine; blk 31, Townsite 1, dr 1175 ft. Warren et al's blk 6, Townsite 1, dr 720 ft. Weiler et al's blk 89, Townsite 1, dr 330 ft. Westheimer et al's Hart 1, sd 900 ft.

COLEMAN COUNTY — Canyon O. & G. Co.'s Harris 1, swedging cas 1640 ft. Morrison & St. John's Young 1, rig. The Texas Co.'s Hall 1, rig.

PALO PINTO COUNTY — Adams et al's Pollard 2, co 1700 ft. Crawford et al's L. Smith 1, sd 3240 ft. Jack Dalton Oil Co.'s Dalton 6, dr bl tools 4010 ft. Moore & Sneboldt's Stuart 3, lcn; Slemmons 1, ur cas 1800 ft. Pender Prod. Co.'s Slemmons 2, sd 3665 ft; Slemmons 3, dr 3385 ft; Rasmussen 2, rig. Texas Pacific Coal & Oil Co.'s Stuart 148, dr 1400 ft. Upham Gas Co.'s Belding 4, fsh cas 1905 ft; Chestnut 2, set cas 3400 ft.

PARKER COUNTY—Monroe et al's Davis 1, dr 520 ft. English et al's Peters 1, sd 950 ft. Swensondale Oil Co.'s Evans 1, dr 3325 ft.

BREWSTER COUNTY — Green Valley Oil Corp.'s J. P. Wilson 1, sd for shot 2140 ft. Western Pet. Corp.'s J. P. Wilson 1, sd for shot 2060 ft.

CRANE COUNTY—Cordona Oil & Potash Co.'s Jax Cowden 1, dr 2430 ft. Penn-Tex Dev. Co.'s Jax Cowden 1, dk. Texas Dev. Co.'s Jax Cowden 1, sd 2680 ft.

CROCKETT COUNTY — Humble & Marland's L. P. Powell 2, dr 700 ft. Humble's Harris Bros. 1, spd and sd. Gulf Prod. Co.'s State-Powell 1, dr 620 ft. Cumberland O. & G. Co. et al's Couch 1, spd and sd. J. C. Cook (Wilcox) et al's University 1, dr 1570 ft. Crockett Drilling Synd.'s Robt. Massey 1, dr 3025 ft; J. M. Shannon 2, sd 260 ft; Shannon 3, lcn. Ely et al's Noelke 1, lcn. Jacobs et al's University 1, spd and sd. Marland Oil Co. et al's W. C. Corbett 1, lcn; University 1, sec 26, blk 31, lcn; University 1, sec 5, blk 30, lcn; J. S. Todd 1, lcn. Wm. Shaffer et al's University 1, dr 275 ft.

CULBERSON COUNTY — The California Co.'s Watkins 1, fsh bit 934 ft. Grisham et al's Watkins 1, dr 2450 ft. Pure Oil Co.'s Mrs. G. H. Guard 1, rig.

JEFF DAVIS COUNTY—Bill Little & Byler's Denton 1, 15 miles W of Valentine, lcn.

GARZA COUNTY—Gulf Prod. Co.'s J. B. Slaughter 1, dr lime 3060 ft. Marland Oil Co. et al's Connell 1, dr 895 ft.

GLASSCOCK COUNTY—Gulf Prod. Co.'s L. S. McDowell 2-C, dr 1180 ft. Marland Oil Co. et al's J. Currie Estate 1, lcn; G. Mook 1, lcn.

HOWARD COUNTY—Deep Rock Oil Co.'s W. T. Scott-Hyman 1, dr 620 ft. Marland Oil Co. et al's M. H. O'Daniel 1, dr 1430 ft.

IRION COUNTY—Chas. Denny et al's D. E. Hughes 1, sd 1470 ft. Virginia-Texas Pet. Co.'s Case 1, dr 665 ft.

LOVING COUNTY—P. V. Petroleum Co.'s J. J. Wheat 1, sec 82, blk 1, W. & N. W. Ry sur, standing 1600 feet 38 gravity in hole 3211-4233 ft, dr shale 4235 ft. Rio Grande Oil Co.'s Sid Kyle 1, rig. Ramsey Oil Co.'s Russell 1, showed oil 4325-75 ft, sd td 4591 ft.

MARTIN COUNTY—Humble O. & R. Co.'s C. C. Slaughter 1, sec 8, blk 35, sd in water 4335 ft.

MIDLAND COUNTY—Rook-Zimmerman et al's M. E. Hill 1, sec 8, TP Ry sur, blk 37, dr 2990 ft.

MITCHELL COUNTY—The California Co.'s Morrison 14, dr 1585 ft. R. G. Barnum & Henshaw's Scott 1, dr 1600 ft. Eastland Oil Co.'s Paul Elder 1, spudding; Keynard 4, dr 1595 ft. W. B. Green et al's Ellwood 1, materials. M. Snyder et al's A. R. Keith 1, showing oil 2490-2505 ft, dr 2625 ft. Magnolia Pet. Co.'s Womack 1, co after shot 2598-2630 ft; W. W. Watson 1, lcn in sec 20, blk 29, Township 1-S.

PECOS COUNTY—Adams Oil Co.'s Devlin 1, 17 miles NW Fort Stockton, sd 1004 ft. Dixie Oil Co.'s Sherbino 1, dr 600 ft. West Texas Exploration Co.'s Macy 1, spd and sd.

REAGAN COUNTY—Big Lake Oil Co.'s University 17, dd, using r 2794 ft; University 20, flowing 155 bbls per hour at 2010-27 ft; University 30, dr 2245 ft; University 31, dr 2680 ft; University 32, dr 2810 ft; University 34, dr 2938 ft; University 36, fsh 2535 ft; University 37, dr 1100 ft; University 39, flowing 240 bbls oil per hour at 2871-77 ft; University 41, dr 2020 ft; University 43, dr 1210 ft; University 44, dr 400 ft; University 45, dr 815 ft; University 46, dr 2612 ft; University 47 to 50, rigs. H. D. Camp et al's University 1, sd 200 ft. B. H. Cogdell et al's University 1, sec 23, blk 8, sd with water in hole 3165 ft. W. H. Dunning et al's J. D. Sugg 1, sec 185, TP Ry sur, blk 2, dr 3045 ft. Ben Simon et al's University 1, blk 11, dr 1560 ft. Marland Oil Co. et al's M. J. Wilson 1, sec 1199, CSD & RGNG Ry sur, ur 665 ft. Texon Oil & Land Co.'s University 12, flowing by heads dr 2950 ft; University 17, dr in 2920 ft; University 19, dr 2890 ft; University 20, flowing 1965 bbls oil, dr 2895 ft; University 22, dr 2475 ft; University 23, dr 1050 ft; University 24, dr 1520 ft; University 25 and 26, rigs; University 27, dr 2480 ft; University 28, dr 900 ft; University 29, dr 2100 ft; University 4, Group 2, sd 2840 ft. University Oil Co.'s University 1, sd 3070 ft.

SCURRY COUNTY—The California Co.'s C. E. Wood 1, dr 2520 ft. Northwest Co.'s Newman 1, swabbing 25 bbls 1880 ft. Morrison-Thompson's M. E. Towle 1, rig.

STONEWALL COUNTY—Arkansas Fuel Oil Co.'s Craft 1, spudding. Elder Nance et al's Ward 1, sd 2130 ft; J. M. Thomas 1, dr 1485 ft.

STERLING COUNTY—Chicago-Texas O. & G. Co.'s Foster 1, sd 1975 ft; D. C. Durham 1, sd 2250 ft; Durham 2, sd 1580 ft. Buell et al's Douthitt 1, sd 2280 ft. Harty et al's Reynolds 1, fsh 270 ft. C. J. Wrightsman's Claude Collins 1, lcn. Wrightsman Pet. Co.'s W. L. Foster 1, dr 1090 ft; G. R. Hull 1, dr 2630 ft. White Eagle O. & R. Co.'s H. M. Mills 1, fsh 853 ft.

SUTTON COUNTY—J. W. Sorrelle et al's Clarkson et al 1, lcn.

UPTON COUNTY—George McCamey et al's Mrs. M. L. Baker 1, dr 1450 ft. Willis Campbell et al's University 1, sd 1770 ft. W. P. Morris et al's H. M. Halff 1, sd 655 ft.

East Central Texas Wildcats

ANDERSON COUNTY—Roeser Pet. Co. et al's Brooks-Auld 2, std 4790 ft; J. K. & L. P. Daniel 1, Chas. Gilmore sur, dr 4100 ft. Elkhart Prod. Co.'s Mack Lynn 1, ½ mile S of Elkhart, dr 2300 ft.

FALLS COUNTY—Mook-Texas Oil Co. et al's J. Woodruff 1, S. C. Robertson Learue No. 4, spd and sd. Harrison & Seaport Oil Co.'s Bargainer 1, Jos. Matthews sur, dk.

HENDERSON COUNTY—Fred Haynes et al's E. G. Bounds 3, Jeffreys sur, dk. Billings et al's Densby 1, co 3080 ft. Evans et al's Martin 1, sd 2910 ft.

LIMESTONE COUNTY—Eisenmayer et al's Rivers 1, B. C. Abbott sur, sd 1190 ft. Lewis et al's Oliver 1, sd water 440 ft. Wells et al's Richardson 1, spd and sd. Swearington et al's Dean 1, H. L. Thompson sur, dr lime 3450 ft. Yoder et al's Saunders 1, cored dry sand 3065 ft.

MILAM COUNTY—Butler Bros. et al's Woodall 1, B. Wicksan sur, cored hard lime 3555 ft. Magnolia Pet. Co.'s M. M. Kime 1, S. P. Carson sur, dr with hole full water showing some gas 3819 ft. Simms Oil Co. & Reiter-Foster Oil Corp.'s B. F. Stidham 1, J. P. Jones sur, top Austin chalk 2955 ft, dr chalk 3550 ft; A. J. McKinney 1, J. K. Tyler sur, lcn. J. K. Hughes et al's Foster 1, Gafford sur, dr 2995 ft. John E. Lee & Zay Gardner's Leonard Isaac 1, T. J. Chambers sur, Austin chalk 2485-2992 ft, dr shale 3225 ft.

NAVARRO COUNTY—Gilbert Johnson et al's Greer 1, Bazette Dist., fsh 2870 ft. Robert Penn et al's G. L. Vinson 2, Bazette Dist., dr lime 2700 ft. Marnett Oil Co.'s Frank Hines 1, John McNeil sur, Austin chalk 1950-2428 ft, set cas 2830 ft.

Texas Panhandle Wildcats

COMPLETIONS

Company, Well, Location—	Initial Production Bbls.	Depth
Carson County—		
Marland Oil Co. Burnett 2	125	3042
Moore County—		
Amarillo Oil Co. R. B. Masterson 1-A	¶20	2360
Wheeler County—		
Texhoma O. & R. Co. Jackson 1-A..	50	2246

North Texas Wildcats

COMPLETIONS

Baylor County—		
McDannald & Smith et al Upshur County Fee 1	*	1665
Clay County—		
John O'Neil et al Alcorn 1	*	3470
Knox Finley Dev. Co. Saner-Lomax 5	*	1389
Throckmorton County—		
Black Cat Oil Co. Gaither 1	*	1605
Domestic Oil Co. Gober 1.....	*	1610
Wilbarger County—		
Hoffer Oil Corp. Waggoner 1, sec 43	*	2806
Independent O. & G. Co. Reed 1 ..	*	2403
Maer-Staniforth et al Waggoner 1, sec 10	*	2005
Texhoma-Holmes et al Thomas 2 ...	*	2315
Thelma Wells et al Waggoner 1 . ..	*	2377

Coastal Wildcats

COMPLETIONS

Chambers County—		
C. T. Rucker's Fisher 1	*	2280
Fort Bend County—		
Rycade Oil Corp.'s Julius-Meier 2..	*	1000
Jefferson County—		
Gulf Prod. Co.'s E. Thomas No. 3	*	1010
Louisiana Gulf Coast—		
Ohio Oil Co.'s Champaign 1.....	*	4500

DRILLING REPORT

ATASCOSA COUNTY—Rio Bravo Oil Co.'s Cortinas 3, on the Cortinas 80-acre tract near Anchorage, H&TC sur, dr at 3200 ft.

BRAZORIA COUNTY—Thrift-Moore's Munsen 1, at Bailey's Prairie, 6 miles W of Angleton, no report.

CHAMBERS COUNTY—W. C. Moore et al's Blanke 1, on Blanke tract, NE quarter H&TC sec 39, 1200 ft W of E line and 500 ft S of N line, temporarily shutdown at 625 ft.

FORT BEND COUNTY—Gulf Prod. Co.'s Moore 5, John Moore lease, dr at 820 ft in gumbo. Rich Development Co.'s Moore-Hager 2, at Big Creek, 300 ft NE of No. 1, SE side of dome, standing. Rycade Oil Corp.'s Wisdom 2, Nash dome, dr at 2504 ft in gumbo, shale and lime; Julius Meier 2, 2500 ft E and 900 ft S of NW cor of Julius Meier 207.7-acre tract, tearing down rig to make new lcn; Nash 5, 1300 ft E and 150 ft S of NW cor of Nash 200-acre tract, blk 2, 1100 ft E of Nash 4, dr at 100 ft in clay. Texas Co.'s G. W. Armstrong 1, James Scott sur, 50 ft to N and S line SW of Needville, dr at 3975 ft in shale; Robinson 13, at Blue Ridge, dr at 3775 ft in shale. Rycade Oil Corp.'s Cox 1, dr at 415 ft in clay.

GALVESTON COUNTY—Gulf Prod. Co.'s George E. Smith 3, at High Island, 300 ft from No. 2, dr at 2920 ft; George E. Smith 4, on M. Dunman sur, 300 ft W of No. 2, dr at 1600 ft in gumbo and boulders.

HARDIN COUNTY—Vacuum Oil Co.'s R. Teel 1, near Saratoga, 350 ft N and 200 ft W of the most easternly SE cor of Teel lease, dr at 3175 ft in rock.

HARRIS COUNTY—Texas Co.'s Warren 4, near Hockley, dr at 2980 ft in shale; Warren 5, T. A. Sulley sur, 700 ft N of No. 3, dr at 1590 ft in blue gumbo. Rycade Oil Corp.'s Norsworthy 1, 200 ft E of W line and 200 ft N of S line of Norsworthy 62½-acre tract, dr at 3583 ft in sandy shale and hard lime. Retrieve Oil Co.'s Sid Westheimer 1, 300 ft from N and W lines on Wiley Smith sur, 7 miles NW of Houston, preparing to dr in for test of oil sand at 2618 ft. Rio Bravo Oil Co.'s Settegast 1, at Pierce Junction, 700 ft W and 200 ft S of NE cor of Settegast 100-acre lease, dr at 3847 ft in gumbo.

JACKSON COUNTY—Vanderbilt Pet. Co.'s Seliner 1, 4 miles N of Vanderbilt, C. W. Hall subdivision of Harwood Burns ranch, preparing to resume drilling at 3283 ft. Houston Oil Co.'s Rodgers 1, dr at 1970 ft in gumbo.

JEFFERSON COUNTY—Houston Oil Co.'s Fanny Crow 1, preparing to abn in hard sand rock at 2858 ft; Sun Davis 3, 172 T&NO Ry sur, 450 ft E of No. 1, dr at 1870 ft in gumbo. Gulf Prod. Co.'s Thomas 3, at Fannette, 1278 ft E and 1600 ft W of SW cor of E. Thomas 445-acre tract, W. H. Smith lease, near Hampshire, abn in gyp at 1010 ft.

LIBERTY COUNTY—Liberty Prod. Co.'s C. F. Seaberg 1, 3300 ft S and 400 ft W of SW cor and SE cor H&TC sur No. 8, shutdown temporarily at about 550 ft.

MATAGORDA COUNTY—Rycade Oil Corp.'s Gray 3, at Markham, 1050 ft S of NE cor and 500 ft W of E line, blk 2, W. H. Gray land, dr at 3979 ft in hard sand and shale with a show of oil. Sheppard Mound Oil Co.'s Hawkins 2, near Hawkinsville, dr at 2030 ft in hard shale. Gulf Prod. Craig 2, near edge of Hawkinsville dome, offset to Craig No. 1, dr at 2300 ft in gumbo.

ORANGE COUNTY—Sinclair Oil & Gas Co.'s Turner 1, 1211 ft S of NE cor J. W. Turner 30-acre tract, tested salt water at 3163 ft, but not yet abn.

REFUGIO COUNTY—Houston Oil Co.'s Heard 1, 200 ft to S and E lines, dr at 1400 ft; Clint Heard 1, rigging up; Rook A-1, building dk; Rook 2, dr at 490 ft in gumbo. 800 ft.

WALKER COUNTY—C. N. Haskell's Phail 1, 9 miles N of Huntsville, shut down at about

LOUISIANA GULF COAST—Rycade Oil Corp.'s Hooks 1, at Lake Arthur, reaming hole at 1895 ft. Marland Oil Co. of Texas' Phoenix Development Co. 1, at Lockport, 650 ft E and 150 ft S of NW cor of SW sec 16, dr at 3388 ft in gumbo. Vacuum Oil Co.'s Phoenix B-1, 1286 ft E, 400 ft S of NW cor sec 16, milling out back pressure valve; preparing to dr deeper; Phoenix C-1, 450 ft S and 825 ft E of NW cor of SW quarter of NW quarter, dr at 4392 ft in shale; Farquar 2, 150 ft S and 100 ft E of NW cor of SW quarter of SW quarter of sec 9, fishing at 4134 ft; Freiberg & Wolf 1, 780 ft S and 685 ft E of NE cor of SW quarter of sec 9, running tubing at 2458 ft; Miller 3, 694 ft W and 300 ft N of SE cor of NW quarter of sec 9, sidetracking to make new hole at 4342 ft; Miller 4, 870 ft E and 150 ft S of NW cor of SE quarter of sec 9, setting 9-inch casing at 3290 ft; Lockmore 3, 1225 ft E and 300 ft N of the NW quarter of sec 10, dr at 2639 ft in shale; Prien Lake State No. 1, Calcasieu Parish, 1190 ft S and 200 ft E of NW cor sec 15, spudding in. Ohio Oil Co.'s Martin 1, Hager Dome district, NE quarter of sec 32, 1000 ft S and 10 ft W of NE cor, spd.

Oklahoma Wildcats

ATOKA COUNTY—Hansen et al Dabney 1, C SE NW 17-4-11w, sd 3562 ft. Wapanucka Dev. Co. Underwood 1, C W L SE SE 28-15-10, sd 1343 ft.

BLAINE COUNTY—Okoma Oil Co., Eklemeir 1, SWc 51-21-10w, sd 1450 ft.

CANADIAN COUNTY—Thos. Revelle Dawson 1, C SE SE NW 20-26-9w, sd 3065 ft. Carroll et al Setter 1, SEc 2-13-8w, sd 100 ft. C. D. Jones et al Sanders 1, C NE NE NE 29-11-7w, sd 2150 ft.

CLEVELAND COUNTY—Carr Oil Co. Holland 1, NEc SE 31-10-4, sd 2620 ft.

HUGHES COUNTY—Mathers and Skelley McClain 1, C SW 4-5-11, sd 3026 ft for funds. Permenter et al T. Stewart 1, C SW SE 11-5-8, rig. Henry Greis and Kerr's Pearson 1, C SE NE NE 30-5-10, ur 12-inch 1100 ft.

JEFFERSON COUNTY—Barkers et al Major 1, C SE SW 34-5-6w, spudded and sd. Godley Oil Co. Woodworth 1, C NE NW 36-5-4w,

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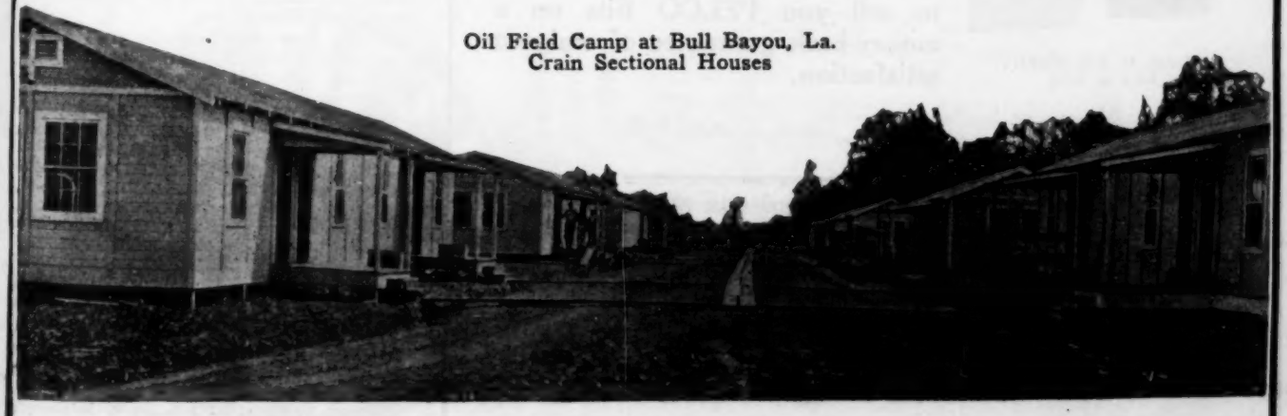

rerun 3-inch at 1932 ft. Pure Oil Co. Howard 1, SWc NE 25-4-11w, drilling 1305 ft.

KIOWA COUNTY—Alcorn Oil Co. No. 1, NEc SE SE SW 13-7-16w, dr 3222 ft.

LINCOLN COUNTY—P and R Corp. Hanzig 1, NWc SW 14-13-6, dr 3401 ft. Douglas Oil Co. Ewing 1, NEc 7-13-3, dr 3210 ft. F. O. Howarth Harris 1, SEc NE 22-15-2, fsh, td 4885 ft. Santrock Drlg. Co., No. 1, SEc NW 17-15-3, sd 920 ft. Ruby et al Cull 1, NEc NW 36-15-4, dr 4548 ft. M. W. Schower Fentzelton 1-A, NWc SW 7-14-4, rig.

LOGAN COUNTY—Franklin Oil Assn.'s Moore 1, NWc SE SE 35-18-4w, sd 2520 ft. Haley & Pioneer's Quair 1, SWc SE 33-18-3w, sd 270 ft. Blackford O. and G. Co.'s Lair 1, C S L N½ SE 28-16-1w, sd 1450 ft.

MAJOR COUNTY—Tex. Prod. Oil Co. Basin 1, SWc 36-22-14w, sd 200 ft. Franz & Slick Gray 1, C NW 36-21-11w, sd 1000 ft.

PONTOTOC COUNTY—Highland Oil Co., Hatcher 1, C NW SW 4-4-5, sd 2315 ft. Bronson and Doyle Starrett 1, SWc NE 5-4-5, spd.

POTTAWATOMIE COUNTY—Texas Co. Allenbaugh 1, SEc SW 3-11-6, fsh 1900 ft. Davie Detrick McGathey 1, SEc 10-6-2, sd 3850 ft for 5-inch. H. G. Gwinup Floyd 1, SW SE 12-11-13, sd 3655 ft for funds. Pierce Oil Co. Madgett 1, NWc 25-10-4, sd 460 ft. McMann Oil Co. Heghean 1, SWc NW 19-7-4, ur 750 ft. Halmond Osmand et al Fiddler 1, SEc NW 4-5-5, sd 545 ft. Central National Oil Co. Toney 1, C SW SW SW 28-10-4, sd 755 ft.

SEMINOLE COUNTY—R. F. Garland Farlin 1, C NE NW 6-6-8, Sec. 50. Transcontinental Oil Co. Davis 1, NE SE 22-7-7, dr 3410 ft. Bryan Bros. Walker 1, C SE SE 4-7-6, ur 10-inch casing. Riverside and Kinney Nitley 1, C S½ NE SE 24-5-5, rig and tools.

WASHITA COUNTY—Meridian Pet. Co. No. 1, SE SE SE 14-9-14w, lcn.

Kansas Wildcats

BARBER COUNTY—R. B. Brown No. 1, NWc 14-34-11w, skidding rig, td 2240 ft.

BARTON COUNTY—Cheyenne O. and G. Co. Sooy 1, SWc SW 27-12-12w, sd 3525 ft. Haynes et al Tuall 1, NWc 21-12-12w, sd 2100 ft. John Harrons No. 1, SEc NE 22-18-13w, dr 4295 ft. Huffine et al Smith 1, C NE SW 21-19-12w, set 8-inch 2300 ft sd.

CLOUD COUNTY—Concordie Oil and Prod. Co., Murdock 1, SEc 6-6-4w, dr 2620 ft.

GEARY COUNTY—Liberty, Texas, Wright 1, NEc 9-12-6, sd 750 ft; Foster 1, NEc SW 3-12-6, sd 2000 ft.

GRAHAM COUNTY—Keyes Bros. and Marine, Thaxton 1, SEc NW 23-8-24w, sd 2000 ft. Gruen and Shilers Baker 1, NWc SE NW 17-10-24w, rig.

JEFFERSON COUNTY—Northern Counties, Edwards 1, SEc NW NW 13-8-9, sd 3405 ft.

LABETTE COUNTY—Arkansas Fuel Oil Co. Sparks 1, NEc SE SE 14-31-17, sd 1110 ft.

LINCOLN COUNTY—Equity Oil Co.'s Jellison 1, NWc SE 19-13-9w, fsh 3530 ft. Scott & Collins' Stone 1, SEc SW NE 19-11-6w, sd 500 ft.

MITCHELL COUNTY — Wilcox O. & G. Co.'s Elder 1, NWc SW NW 23-6-9w.

NEMAHA COUNTY — Nemaha O. & G. Co.'s Meyers 1, NWc 19-3-11, sd 3250 ft.

OSBORN COUNTY—H. A. Beasley's Turner 1, NEc 10-7-12w, dr 600 ft.

OSAGE COUNTY — Rodgers & Bittle's Bertha 1, SEc NW 22-17-16, lcn. Mul-Vit Dev. Co.'s Neil 1, NEc NW SW NE 8-17-17, sd 2735 ft. Baker et al's No. 1, C SE SE 3-15-15, sd 260 ft.

RICE COUNTY—Stamey's Barnes 1, SEc NE 21-20-6w. Jasper & Beschka's Walker 1, SWc NE 10-18-6w, dr 2650 ft.

RILEY COUNTY—Pawnee O. & G. Co.'s Marks 1, SEc NE NW 26-10-6, dr 2400 ft.

ROOKS COUNTY—Keyes Pet. Co.'s Sandon 1, NWc SW SE 7-8-20w, spd and sd. C. Findeiss et al's Minx 1, SWc 25-10-19w, dr 3312 ft.

SALINE COUNTY—Thrall et al's No. 1, SEc NE NW 15-15-4w, sd 1010 ft.

SEDGWICK COUNTY—Curtis et al's Duncan 1, SEc NW NW 19-22-1w, dr 1710 ft. Allison & Fitzwilliams' Webb 1, C NE 21-29-3w, spd.

TREGO COUNTY—Keyes Pet. Co.'s Walsh 1, NWc SE 5-11-25w, sd 1450 ft; Walsh 2, SWc SE SW 5-11-25w, sd 1550 ft.

WABAUNSEE COUNTY—Williams et al's No. 1, NEc SW 15-13-12, sd 3600 ft.

WOODSON COUNTY—Alter et al's Hunt 1, NWc SW 13-25-14, sd 700 ft.

Louisiana Wildcats

BIENVILLE PARISH—J. E. Smitherman's Hunt-Hodges 1, 8-15-5, dr 1560 ft.

BOSSIER PARISH—Clark et al's Wutzke 1, 2-18-12, dr 210 ft. Corbett et al's Murff 1, 18-17-11, rig. Kendrick et al's Webster 1, 9-18-11, set 10-inch 180 ft. Woodley & Collins' Chamlee 1, 20-23-12, dr 2515 ft. Weatherbee et al's Beidle 2, 24-19-11, lcn.

CADDO PARISH—Dixie Oil Co.'s Dillion 53, 13-21-15, milling 3689 ft; Hoss 1, 24-22-15, dk; Jolley 1, 27-22-15, set 6⅝-inch 3420 ft. Flournoy et al's Simpson 1, 8-16-15, dr 2635 ft. Fortuna Oil Co.'s Levee Board 2, 8-20-15, dr 2075 ft; Mitchell 1, 17-18-15, r 3719 ft. Haynes Bros. L. S. & P. I. 1, 8-19-16, dr 3365 ft. Henderson et al's Caldwell 1, 29-22-15, sd 1520 ft. Ohio Oil Co.'s E. K. Smith 17, 12-21-15, show of gas 3637 ft; to deepen. Shreveport P. & R. Co.'s Bryson 1, 17-17-16, dr 2865 ft. The Texas Co.'s Jeems Bayou 1, 15-20-16, sd 3628 ft; Levee Board 58, 27-21-16, sd 2517 ft.

CLAIBORNE PARISH — Ohio Oil Co.'s Patton 1, 23-21-5, dk. Triangle Drlg. Co.'s Keen 1, 7-19-5, dr 1185 ft.

DE SOTO PARISH — Fortuna Oil Co.'s Alexander 1, 32-12-15, dr 3390 ft. Gulf Ref. Co.'s Williams C-18, 31-13-11, dr 3675 ft.

GRANT PARISH — Dowling & McCurry's Holmes 1, 20-19-1e, set 10-inch 80 ft.

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†Ranger, Texas
†Electra, Texas
†Burkburnett, Texas
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Bovaird & Seyfang Oil Field Boilers.
Wall (Walk Laid) Bull Ropes and Manila Cables.
Rhodes Master Packing.

JACKSON PARISH—Big Chief Oil Co.'s Rymes 1, 13-14-4w, dr 3035 ft.

LA SALLE PARISH — Columbia O. & G. Co.'s Urania 1, 22-10-2e, set 10-inch 112 ft. Davis et al's Russell 1, 24-10-1e, rig. Finn & Ball's King 1, 23-10-1e, sd 40 ft. Goulf & Monroe Drilling Co.'s Harper 1, 23-10-1e, sd 1496 ft. Helm & Burch's Urania 1, 10-10-2e, dr 1520 ft. Imperial O. & G. Co.'s Urania 1, 10-10-2e, dr 1795 ft. Love et al's Tremont 2, 30-10-2e, sw 1534 ft, to deepen. P. J. White's Louisiana Central 1, 27-10-2e, dk. Wright et al's Love 1, 16-11-2e, sd 1460 ft. Zeigen et al's Urania Lumber 2, 19-10-2e, wosr 1572 ft.

LINCOLN PARISH—Buckner et al's Barrett 1, 13-10-3w, dr 2550 ft.

MOREHOUSE PARISH — Boisseau et al's Sullivan 1, 11-21-7e, set 10-inch 321 ft.

OUACHITA PARISH—Culver et al's Cordell 1, 23-15-3e, dk. Dickson & Frue's Goodwin 1, 24-18-2e, dr 3000 ft. Palmer Corp.'s (White) Jones 1, 6-16-5e, sd 2459 ft.

RAPIDES PARISH—Mack & Hincy's Barron 1, 29-5-2, sd 90 ft. Wilbanks & Weaver's Lanier Land 1, 3-4-3e, dr 1315 ft.

SABINE PARISH—Emlet et al's Bowman-Hicks 5, 9-7-10, to deepen, 2668 ft; Bowman-Hicks 6, 8-7-12, sd 543 ft. Toro Petroleum Co.'s Wyatt 1, 18-4-11, set 8-inch 1500 ft.

UNION PARISH—Jones & Walker Oil Co.'s Feazel 1, 6-19-2e, fsh 2558 ft. Rhodes et al's Jones 1, 6-23-2w, dk.

WEBSTER PARISH — Fortuna Oil Co.'s Bible 1, 8-20-9, fsh 2946 ft. Palmer Corp.'s Davis 1, Cotton Valley deep test, 23-21-10, fsh 3967 ft.

WINN PARISH—Hall et al's Eagle 1, 6-10-2w, dr 505 ft. Ohio Oil Co.'s Rowland 1, 5-12-1w, dry 2661 ft, dr 2695 ft.

Arkansas Wildcats

ASHLEY COUNTY—Brown et al's Fee 1, 33-16-7, dk. Pine Ferry Oil Co.'s Pine Ferry 2, 1-17-6, dk. Rhodes et al's Bledsoe 1, 20-15-7, sd 110 ft.

BRADLEY COUNTY—Ruth Easley's Brown 1, 21-16-12, rig. Gulf Ref. Co.'s Benson 1, 25-15-9, rig. The Texas Co.'s Saline Lumber 1, 11-17-10, coring 3035 ft.

CALHOUN COUNTY — Brown-Hunt-Murdock et al's Freeman-Smith 1, 25-15-18, dr 1800 ft. Magnolia Pet. Co.'s Calion Lumber 1, 29-15-14, rig. Murdock et al's Eagle Mills 1, 29-12-15, dr 2325 ft.

CLARK COUNTY—Heath Trust's Arnold 1, 12-9-20, rig.

CLEVELAND COUNTY—Dedman et al's Moore 1, 28-9-10, sd 1756 ft, to set cas.

COLUMBIA COUNTY — Chaddick et al's Emerson 1, 7-19-19, to resume dr 2957 ft. Greeson et al's Pearce 1, 3-18-20, sd 2100 ft. Gulf Ref. Co.'s Hines 1, 17-17-18, sd 3091 ft. Hude & Aarnes' Brown 2, Stephens deep test, 13-15-20, to deepen 2109 ft. Pluto Oil Co.'s Dickens 1, 20-18-22, dk; Robinson 2, 23-18-23, to set 8¼-inch 900 ft. 6

DALLAS COUNTY—McNeill et al's Owens 1, 29-10-16, dk.

DREW COUNTY—Graves et al's Karnes 1, 35-13-5, sd 3033 ft.

LA FAYETTE COUNTY — Arkansas Fuel Oil Co.'s Allen 1, 18-19-24, dr 1415 ft. Humble O. & R. Co.'s Bodcau Fee 1, 17-16-23, dr 900 ft; Bodcau-Reed 1, 16-15-22, dr 1680 ft; Ford 1, 28-16-24, dr 1525 ft. Ken-Saw Pet. Co.'s Red River Valley 2, 3-20-24, dr 2775 ft.

LITTLE RIVER COUNTY — Grote et al's Allen 1, 2-13-29, set 6-inch 2900 ft.

MILLER COUNTY—Copeland et al's Wiseman 1, 36-15-27, dr 1750 ft. Davidson et al's Faulk 1, 29-17-27, dr 1875 ft. Gillespie et al's Fee 1, 2-15-26, dr 2290 ft. Humble O. & R. Co.'s Fouke 2, 2-16-17, repairing dk, 496 ft.

NEVADA COUNTY — Dudney-Thompson Synd.'s Mays 1, 23-14-22, sd 1088 ft. Humble O. & R. Co.'s Smith 1, 7-14-19, rig. Magnolia Pet. Co.'s Johnson 1, 3-15-21, dr 800 ft. Steele et al's Fincher 1, 9-15-22, sd 1600 ft.

OUACHITA COUNTY — Bondurant et al's Garner 1, 8-18-12, rig. Buffalo Oil Co.'s Davis 1, 22-15-19, to set 6-inch 2120 ft; Morgan 2, 22-15-19, sd 2121 ft. Gilliland Oil Co.'s Myar B-5, 30-15-16, sd 2600 ft; to set 4½-inch cas. Humble O. & R. Co.'s Warren 1, 35-13-19, dk; Smith 1, 7-14-19, dr 965 ft. Jones et al's Banks 1, 11-8-25, to sdtr 2135 ft. Lown O. & R. Co.'s Burton 1, 30-15-17, sd 2585 ft. Van Diver et al's Yarbrough 1, 22-14-17, sd 900 ft.

UNION COUNTY — Magnolia Pet. Co.'s Chandler 1, 4-19-14, dr 3140 ft. Warbler et al's Morrison 1, 12-18-14, sd 2523 ft. Ward et al's Goodwin 1, 16-16-14, dr 2650 ft.

PERMITS GRANTED FOR NEW WELLS

Weekly Comparison of New Wells

Following is a condensed table giving a comparison of permits or locations made for new wells in Kansas, Oklahoma, Arkansas, Louisiana, Texas and California:

	Number of Wells for Week Ending															
	May 15	May 22	May 29	June 5	June 12	June 19	June 26	July 3	July 10	July 17	July 24	July 31	Aug. 7	Aug. 14	Aug. 21	Aug. 28
Kansas .	32	27	29	44	40	19	29	50	39	31	41	37	24	42	37	20
*Oklahoma	94	95	114	106	93	104	115	80	96	66	69	76	60	84	..	61
Arkansas	31	77	62	67	40	64	41	*4	53	72	63	22	46	16	37	14
Louisiana	7	12	8	16	18	8	8	11	9	15	9	8	9	12	10	10
Texas . .	208	130	167	221	198	204	206	168	176	203	208	163	210	209	222	115
California	34	29	33	24	33	37	30	49	34	28	25	17	26	8	37	26
Total .	406	370	413	478	422	436	429	362	407	415	415	323	375	371	343	246

*Includes permits for past two weeks.

CALIFORNIA

Coalinga Field—Pacific Oil Co.'s No. 1, 25-20-14.

Conejo Field—C. A. Harding Trustee's No. 49, 33-2-20.

Devils Den Field—Devils Den Products Co.'s No. 1, 24-25-18.

Elk Hills Field—Elk Hills Petroleum Co.'s No. 8, 34-30-24. Pan American Petroleum Co.'s Crampton K-2, 3-31-24. Gross Drilling Co.'s No. 2, 26-20-24. Pacific Oil Co.'s No. 26, 27-30-24. Belridge Oil Co.'s No. 16, 34-30-24; No. 18, 34-30-24.

Inglewood Field—Standard Oil Co.'s L. A. Investment 1-32, 17-2-14; L. A. Investment 1-30, 17-2-14. Associated Oil Co.'s Vickers 21, 7-2-14; Vickers 19, 7-2-14. Standard Oil Co.'s Stocker 2, 16-2-14. Pacific Oil Co.'s Baldwin 22, 17-2-14.

Huntington Beach Field—Standard Oil Co.'s Huntington B-36, 2-6-11.

Kern County and River Field—John K. Porter's No. 1, 32-26-28. Boston Petroleum Co.'s No. 25, 20-28-28.

Long Beach Field—J. E. O'Donnell's O'Donnell 44, 24-4-13; O'Donnell 45, 19-4-12.

Los Angeles County Field—Petroleum Securities Co.'s Narbonne 1, 35-4-14.

Midway Field—California Pet. Corp.'s Dorothy 6, 34-32-24.

Rosecrans Field—Barnsdall Oil Co.'s O'Dea 6, 18-3-13. B. E. Gerner's Bud Gerner 2, 7-3-13.

Sunset Field—Pacific Oil Co.'s No. 15, 25-12-24. El Dora Oil Co.'s No. 8, 32-12-23.

Temblor Field—Hastian and Purman, Inc.'s No. 1, 1-29-20.

KANSAS

Butler County—Buck et al's No. 1 Sturgeon, northwest corner of lot 12, section 19-23-8. Sheldon et al No. 1 Weidman, northeast corner of 13-24-7. White Eagle Oil & Refining Company No. 1, Henley, southeast corner of the northwest of 20-24-8. Ramsey et al No. 1 Guyot, northwest corner of the southwest of 4-29-5.

Chase County—Mid-Kansas Oil & Gas Co. No. 1 Shambaugh, northwest corner of the southwest of the southwest of 36-22-9.

Cowley County — Benedum & Trees No. 5, Shaffer, southwest corner of the northeast of the northeast of 10-31-3. Duffield et al No. 1 Boyd, northwest corner of the southwest of 19-32-5.

Greenwood County—Sinclair Oil & Gas Co. No. 26, Browning, center of the south line of the southwest of 20-22-10. Sinclair No. 27, Browning, northeast corner of the southwest of the southwest of 20-22-10. Noble Oil & Gas Co. No. 2 Voorhees, southeast corner of the southwest of 1-22-11. Simmons et al No. 1 "B" Harris, northeast corner of the northwest of 19-22-11. Phillips Petroleum Co. No. 2, Rees, southwest corner of 29-22-11. Phillips No. 1 Coffman, northwest corner of the northeast of 30-22-11. Phillips No. 3 Morris, southeast corner of the northwest of the southwest of 14-23-9. Skelly Oil Co. No. 4 Fleming, center of the north line of the southeast of the northeast of 15-24-12. Christie et al No. 2 Cornish, southwest corner of the southeast of the southeast of 31-24-13.

Lyons County—Swartz et al No. 3 Jones, northwest corner of the northeast of the southwest of the southeast of 31-21-12. Swartz et al No. 4 Jones, northwest of the southwest of the southeast of 31-21-12.

Phillips County—Curtis & Frost No. 1 McQueen, northwest corner of the southeast of 15-5-16w.

Woodson County — Pure Oil Co. No. 13, Headby, center of the west line of northwest of the southeast of 32-23-14.

OKLAHOMA

Kay County—McIntyre & Foster No. 1, cen-

ter of the southeast of the southeast of the northeast of 29-27-1.

Garfield County—Roxana Petroleum Corporation No. 2-W Wolfe, center of the northeast of the southeast of the northwest of 13-22-4w; Roxana No. 3-W Wolfe, center of the southwest of the southeast of the northwest of 13-22-4w. Cosden & Marland No. 53 School Land, center of the southeast of the northeast of the southeast of 13-22-4w; No. 54 School Land, center of the northeast of the northeast of the southeast of 13-22-4w. Cosden & Marland No. 55 School land, center of the northeast of the northwest of the southeast of 13-22-4w. Cosden & Marland No. 56, School land, center of the southwest of the northwest of the southeast of 13-22-w. Sinclair Oil & Gas Company No. 27 Denker, center of the southeast of the northeast of the southwest of 13-22-4w. Sinclair No. 28, Denker, center of the northwest of the northeast of the southwest of 13-22-4w. Sinclair No. 23, Walker, center of the southeast of the southeast of the northeast of 13-22-4w. Sinclair No. 24, Walker, center of the northeast of the southeast of the northeast of 13-22-4w. Sinclair No. 9 Murphy, center of the west half of the west half of the northeast of 23-22-4w. Sinclair No. 6 Ed Kisner, center of the northeast of the northeast of the southeast of 36-22-4w. Roxana Petroleum Corporation No. 4-W Schroeder, center of the southwest of the northwest of the southwest of 18-22-3w. Roxana No. 5-W Schroeder, center of the northwest of the northwest of the southwest of 18-22-3w. Roxana No. 6-W Schroeder, center of the northeast of the southwest of the southwest of 18-22-3w. Roxana No. 9-W Schroeder, center of the southwest of the southeast of the southwest of 18-22-3w. Sinclair No. 19 Hartley, center of the southwest of the southwest of the northwest of 10-22-3w. Sinclair No. 20 Hartley, center of the northwest of the southwest of the northwest of 18-22-3w. Sinclair No. 16 Crews, center of the east half of the west half of the southwest of 19-22-3w.

Pawnee County—Block & Carnahan No. 1-A, Rogers, southwest corner of the southeast of the northwest of 11-20-7. Chas. H. Burton No. 1 McMuttrue, northeast corner of the northwest of 35-20-7.

Creek County — Atlantic Oil Producing Co. No. 1 Carman, southwest corner of 36-18-8. Waite Phillips No. 2 Harjo, northeast corner of the southeast of the northeast of 24-17-8, old well deepened. Tidal Oil Co. No. 1 Major, northeast corner of the southwest of the northwest of 21-16-8. Roxana Petroleum Corporation No. 1-A Sewell, northwest corner of the southwest of the northeast of 18-19-9. Billingslea No. 1 Maloney, southwest corner of the northwest of 7-18-9. Gypsy Oil Co. No. 17 McGuire, northeast corner of the southeast of the northeast of 1-18-11. Gray Oil Company No. 1 Leader, center of the west line of the northeast of the northeast of 3-18-11. B. S. Kennedy et al No. 1 Strip, southwest corner of the northwest of the northeast of the northwest of 6-18-12. Tidal Oil Co. No. 1 Dickson, northeast corner of the southeast of the northwest of 19-17-10. Noble No. 5 Stuart, center of the northwest of the northeast of the northwest of 20-14-10.

Payne County—Mulberry Oil Co. No. 2 Flint, northwest corner of the southeast of the southwest of 5-17-4.

Tulsa County—Holmes et al No. 2 Island, northeast corner of the northwest of the northeast of 22-20-9. Regal Oil Co. No. 4 Wicey, southwest corner of the southeast of the southeast of 36-19-11, old well deepened. Suppees et al No. 1-A Templin, southwest corner of the southeast of 34-19-12. Winemiller et al No. 2 Kirk, northeast corner of the southwest of the northeast of 13-16-12.

Okmulgee County — Oklahoma Natural Gas Co. No. 3 Tiger, southeast corner of the northeast of the southeast of the southeast of 24-16-12. Clover Brothers No. 6 Fee, southwest corner of the northwest of the northwest of 3-15-11. Texas Co. No. 1 Conseth, center of the west line of the northwest of the northwest of 17-15-12. Mickleson No. 1 Unallotted, northwest corner of 29-15-12. Superior Oil Co. et al No. 1 Hance, northwest corner of the southwest of 17-14-11. Pure Oil Company No. 6 Kemp, center of the north line of the northwest of the southeast of 25-13-11. Amerada Petroleum Corporation No. 8 Harjo, southwest corner of the northwest of the northwest of 13-12-11. J. E. Dow No. 1-A Bird, southeast corner of the northwest of 14-12-11. Josey Oil Company No. 1 Stubbleford, southwest corner of the northeast of the northwest of 33-12-11.

Okfuskee County — Atlantic Oil Producing Co. No. 1 Chief, northeast corner of 25-11-10.

Seminole County—Sinclair Oil & Gas Co. No. 1, Tholeco, center of the northeast of the southeast of the southeast of 7-9-7.

Hughes County—Carter & Sands Petroleum Company No. 2 D. Cain, center of the southwest of the northwest of the southeast of 1-9-9.

Grady County—Carter Oil Co. No. 5 McCaughtry, southwest corner of 26-5n-8w. Emerald Oil Co. No. 1, center of the east line of the southeast of the southeast of 36-4n-8w.

Carter County—Skelly Oil Co. No. 1 McClish, center of the southeast of the northeast of the northwest of 21-2s-3w. Amerada Petroleum Corp. No. 1 Potter, center of the southwest of the southeast of 2-3s-3w. Atlantic Oil Producing Co. No. 2 Cobb, center of the southwest of the southwest of the northwest of 5-3s-2w. Merrick-Cameron No. 4 Moyer, center of the southwest of the southwest of the northeast of 8-3s-2w. Amerada Petroleum Co. No. 3-A Fish, northeast corner of the northeast of the southwest of the southeast of 28-5s-1.

Muskogee County—J. L. Slusher No. 1 Manule, center of the west line of the southwest of the northwest of 6-14-17. T-O Petroleum Co. No. 7 Sango, center of the southeast of 1-14-17. Buell & Bradley No. 2 Price, southwest corner of the northwest of the southwest of 32-15-19.

Wagoner County—Kenmaker No. 4 McIntosh, southeast corner of the southwest of the southwest of 2-17-16. A. G. Hazlett No. 1.

LOUISIANA

Caddo Parish—Dixie Oil Co. Inc.'s J. M. Hoss 2, 24-22n-15w, 570 ft E and 190 ft S of NW Cor. of SW¼ of SE¼. Fortuna Oil Co.'s Bradford 1, 24-21n-15w, 330 ft E and 330 ft S of NW Cor. of SE¼; Raines 21, 22-21n-15w,

Williamsport Has Model Machine for Rope Making

A working model for the manufacture of wire rope for oil country use that turns out a steel cable with a hemp center at a single operation is in use by the Williamsport Wire Rope Company with sales offices for the oil country in Tulsa. This machine embodies entirely new manufacturing principles in the wire rope business.

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These strands then are carried through a multiplicity of operations and at the same time a hempen rope is also fed into the machine. The product as it comes out is a wire cable composed of six strands of steel, each being composed of six small steel wires and wound around the hempen center. This gives a wire cable with the maximum of flexibility, wearing power and embodied strength.

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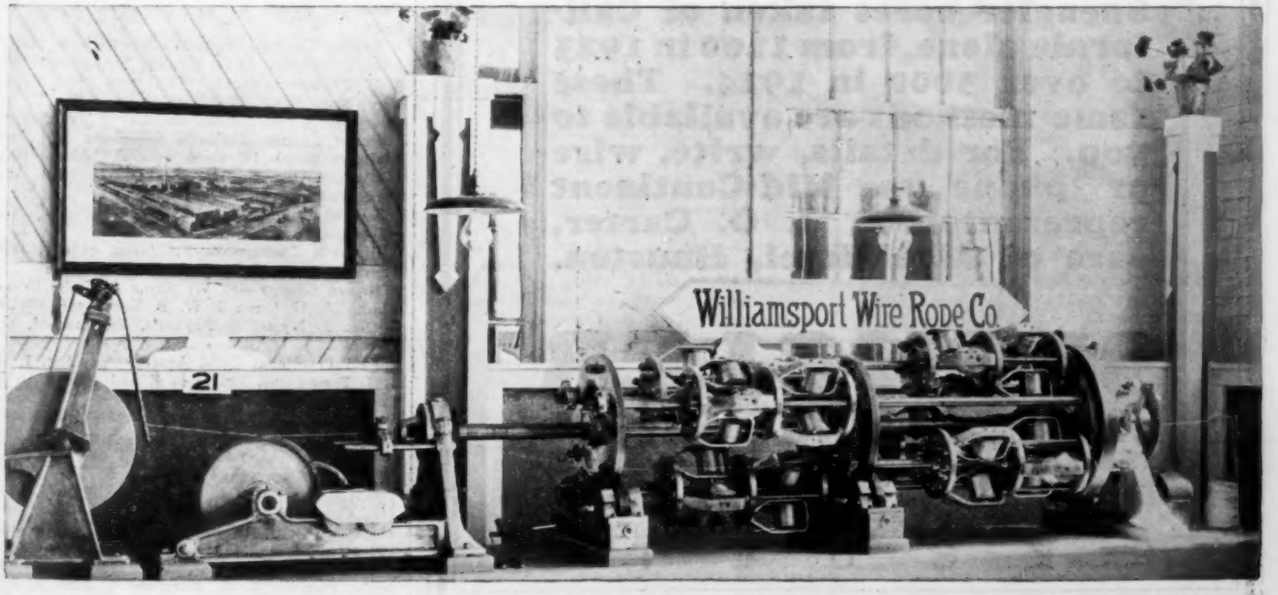

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R E S U L T S

219 ft N and 669 ft E of SW Cor. of NW¼ of NE¼.

Calcasieu Parish—The Union Sulphur Co.'s Hollier 1, 6-9s-10w, 456 ft W and 112 ft S of NE Cor. of SE¼ of SE¼. Vinton Petroleum Co.'s Gray-Rescue 14, 4-11s-12w, 626 ft S and 554 ft W of NE Cor. of Sec.

De Soto Parish—Dixie Oil Co.'s C. E. Jenkins 1, 9-12n-11w, 200 ft N and 200 ft E of SW Cor of Sec.

Jefferson Davis Parish—Yount-Lee Oil Co.'s Welsh Oil & Dev. Co. 3, 21-9s-5w, 1270 ft N and 68.6 ft W of SE Cor. of Sec.

La Salle Parish—Carl W. Beckman's Urania Lbr. Co. 1, 25-10n-1e, 150 ft W and 150 ft N of SE Cor. of SW¼ of NW¼.

St. Martin Parish—The Ohio Oil Co.'s Robert Martin et al 1, 32-9s-7e, 1220 ft S and 200 ft W of NE Cor. of Sec.

Union Parish—Gulf Refining Co. of La.'s Frost Lbr. 1, 33-23n-1w, 1520 ft E and 220 ft N of SW Cor. of Sec.

ARKANSAS

Ouachita County — Arkansas Drilling Co.'s Turnage 1, 34-15-16, NWc NW¼ SE¼. Bailey & Murray's Rhoten B-5, 32-15-15, SEc SW¼ SW¼ NW¼. J. E. Crosby's Berry 14, 33-15-15, NWc SW¼ NE¼. Humble Oil & R. Co.'s Hildebrand 8, 28-15-15, SEc SW¼ SW¼. Magnolia Pet. Co.'s Brown 4, 26-15-17, 660 ft N and W of center. Unity Pet. Corp.'s Umstead 9, 33-15-16, SEc NW¼ SW¼.

Union County—Gulf Ref. Co.'s Alphin 17, 2-16-15, 2970 ft N and 200 ft E of SWc of section. Higgins O. & F. Co.'s McGraw 4, 6-16-16, SEc SE¼ SW¼. Imperial O. & G. Co.'s McClanahan 11, 6-16-15, NWc Lot 2 in NE¼; McClanahan 12, 6-16-15, SWc Lot 2 in NE¼. Lyall et al's Fee 11, 3-16-15, SWc SE¼ NW¼. Stewart et al's Murphy 4, 9-16-15, 350 ft N and 330 ft W of SEc NE¼ SW¼. Thurman et al's Wingfield 4, 5-16-15, SWc NW¼ SE¼. Unity Pet. Co.'s Roper 14, 3-16-15, NWc NE¼ SW¼.

TEXAS

Archer County—Bridwell & Mayfield's, Wichita Falls, J. T. Richardson 27, S 9, J. L. Anderson sur, 1452 ft to N and 2131 ft to W line; 28, same sur, 850 ft N No. 27. Stanley & McGregor's, Wichita Falls, Roberson 8-A, B 6, J. Llewellyn sur, 50 ft N No. 1. Dale Oil Corp.'s, Wichita Falls, Wilmot 14, S 4, S. P. Ry sur, 300 ft N No. 13. Wichtex Oil Co.'s, Waggoner Bldg., Wichita Falls, A. P. Jackson 1, W. B. Aldridge sur, 150 ft to N and W lines. Texas Co., Wichita Falls, M. E. Rogers 10, 1600 TE&L sur, 300 ft NW No. 7. McCarty Oil Co.'s, Bob Waggoner Bldg., Wichita Falls, L. F. Wilson 2, E. Hall sur, 300 ft S No. 1. Gulf Prod. Co.'s, Ft. Worth, E. S. Monohan 17, 1599 TE&L sur, 318 ft N No. 12; M. Wear 43, I. Holman sur, 300 ft W No. 2.

Atascosa County—Atascosa Oil & Gas Co.'s, Alamo Nat. Bank Bldg., San Antonio, T. M. Peeler 1, BB&F Ry sur, 200 ft to N and W lines.

Baylor County—Bridwell, Heydrick & Netherton's, Wichita Falls, Upshur School 4, S 36, J. S. Crittenden, center. Petroleum Prod. Co.'s, City Nat. Bank Bldg., Wichita Falls, L. J. Kilcrease 3, 1809 TE&L sur, 300 ft NW No. 2.

Bexar County—Helvetia Oil Co.'s, San Antonio, S. Smith 14, north central. Alamo Gas Co.'s, 808 East Houston St., San Anotnio, W. Woelfshahl 4, 350 ft NE No. 3.

Bosque County—H. Sitton's, Cleburne, J. O. Rhome 3, N. J. Dobie sur, 270 ft SE No. 1.

Brazoria County—E. F. Hamm et al's, Damon, T. H. Bryan 3, A Darst sur, center

Brown County—F. W. Stone & Co.'s, Cross Plains, A. G. Gunn 3, W. B. Smith sur, 600 ft E No. 2. Nystel & Bryant's, Brownwood, G. Groom 2, J. M. Roos sur 609, 300 ft E No. 1. Infield Petroleum Co.'s, Austin, Peas Est. 1, B 3, J. Brown sur, 736 ft to E and 1853 ft to S line. R. F. Gilman et al's, Box 117, Cisco, W. F. Henry 1, S. Ingram sur, 155 ft to S and E lines; J. M. Moore 5, W. B. Smith sur, 575 ft to W and 155 ft to S line. El Evans', Cisco, B. W. McDonough 1, 148 W. B. Travis sur, 150 ft to N and W lines. R. F. Gilman's, Box 117, Cisco, J. W. Newton 6, Wm. Miller sur, 155 ft to N and 455 ft to W line; 7, same sur, 155 ft to N and 455 ft to E line.

Callahan County—Goodloe, Harris & Tollett's, Putnam, J. E. Burnham 4, 2288 TE&L sur, 450 ft SW No. 1. Westheimer & Daube's,

Ardmore, Okla., Mrs. Slaughter 1, S 67, Bayland Asy sur, 330 ft to E in center of line. Texas Co.'s, Cisco, G. H. Clifford 7, 3151 TE&L sur, 1720 ft to N and 150 ft to W line. G. Albert Teague Co.'s, Mobley Hotel, Cisco, T. J. Brooks 1, S 130 Univ. Lands sur, 150 ft to E and 1280 ft to S line. Brannon & Murray's, Eastland, Diller 9, S 48, L. A. L. sur, 300 ft E No. 1. Kleiner Bros.', Cisco, J. L. Wood 3, 2277 TE&L sur, 450 ft to N and 150 ft to W line. Tom Bryant's, Cross Plains, B. G. Lindley 1, B 72, Cross Plains sur, west central. Nee & Crabtree's, Cisco, Hinds 1, S 96, RBB&C Ry sur, 150 ft to N and E lines. H. I. Stock's, Cisco, R. D. Williams 10, 2268 TE&L sur, 150 ft to S and E lines; 11, same sur, 450 ft to N and 300 ft to E line. J. C. Park et al's, Wichita Falls, Z. C. Wagley 9, S 2, D&D Asy sur, 300 ft E No. 2. Sirmans Oil Co.'s, Cisco, J. W. Woods 1, 2291 TE&L sur, 800 ft to N in center of line. Electra-Callahan Oil Co.'s, Electra, J. H. Ogle 14, 2297 TE&L sur, west central. Parkersburg Drilling Co.'s Box 19, Cisco, D. A. Forbes 12, 2279 TE&L sur, 300 ft to E and 150 ft to S line. J. F. Williams', Daniels Hotel, Cisco, R. L. Buchanan 7, B 8, Bayland Asy sur, 150 ft to N and E lines.

Coleman County—Shynar & Dennis', Stepenville, Archer Bros. 1, S 165 B. D. Justice sur, 150 ft to S and W lines. Humble Oil & Ref. Co.'s, Wichita Falls, J. P. Morris 1, J. Harris sur, 300 ft to E and 2836 ft to S line. Shaw, Fox & Adams', Burkett, W. F. Burns 4, A. Wickson sur, 300 ft S No. 3.

Clay County—Navarro Oil Co.'s, Box 1407, Wichita Falls, Van Winkle 1, B 72, P. C. S. L. sur, 664 ft to N and 150 ft to E line.

Caldwell County—United North & South Oil Co.'s, Luling, G. W. Proctor 11, J. Henry sur, 150 ft to N and W lines. Gulf Production Co.'s. Houston, J. A. Cardwell 1, E. Pettus sur, 1600 ft to E and 225 ft to S line. C. M. Cope's, Lockhart, C. H. Beaty 5, J. Burleson sur, 206 ft E No. 2.

Eastland County—Corzelius Bros. & Taggart's, Eastland, H. Brashear 2, E. Finley sur, 1800 ft to N and 1400 ft to W line. E. V. Parsons', W. T. Waggoner Bldg., Ft. Worth, J. Blackwell 1, B 8, McL. C. S. L. sur No. 2, 600 ft N in center of line. L. Teatsorth et al's Eastland, J. M. Scott 5, S. J. Robinson sur. Pettit & Adkisson's, Magnolia Bldg., Dallas, Sue 1, Robinson sur, 1200 ft to E and 250 ft to S line.

Foard County—Navarro Oil Co.'s, Box 1407, Wichita Falls, Mrs. E. Easley 1, S 34, S. P. Ry sur, 1320 ft to W and 1175 ft to S line.

Fort Bend County — Rycade Oil Corp.'s, Humble Bldg., Houston, W. R. Nash 5, B 2, T. Alsberry sur, 200 ft to N and 1300 ft to W line.

Harris County — F. M. Long's, Box 243, Humble, W. H. Ward 1, B 9, Riverside sur, 150 ft to N in center of line. Cezeaux & Martin's, Houston, Burt & Griffth 4, Burt sur.

Jones County—C. C. Cady's, Moran, R. E. Burns 6, S 68, L. A. L. sur, 300 ft SW No. 5.

Jim Hogg County—O. W. Killam's, Laredo, A. Martinez 14, 256 Blk. 14, 344 ft S No. 6.

Jefferson County — Jack Walton Oil Co.'s, Houston, French Dome 1, A. Williams sur. Unity Oil Co.'s, Beaumont, McFaddin 86, P. Humphreys sur, 600 ft to N and 1500 ft to W line.

Jack County — Buttram Petroleum Corp.'s, Braniff Bldg., Oklahoma City, Okla., J. Preston 1, J. C. Slagle sur, 300 ft W and 704 ft to N line.

Liberty County—Sun Oil Co.'s, Beaumont, T. S. Masterson 1, T. B. Drake sur, 1790 ft to E and 177 ft to S line. Gulf Production Co.'s, Houston, E. M. Scarbrough 16, No. 28 I&GN Ry sur, 55 ft to W and 164 ft to S line.

Milam County—Texas Petroleum Dev. Co.'s, Box 809, Cameron, W. M. Phillips 9, J. W. Chambers sur, 600 ft NE No. 8. Milam Prod. Co.'s, Rockdale, W. E. Gaither 2, T. J. Chambers sur, 300 ft SW No. 1. Chicago Oil & Land Co.'s, Rockdale, W. E. Gaither 2, T. J. Chambers sur, 382 ft SW No. 1. Anchor Oil Co.'s, Republic Bank Bldg., Dallas, Mrs. E. Hamilton 3, R. Milby sur, 300 ft NW No. 2; 4, same sur, 300 ft NW No. 3. Rockdale-Bryan Oil Co.'s, Rockdale, H. T. Coulter 1, T. J. Chambers sur, 152 ft to N and E lines.

McLennan County—G. F. Ford's, 1545 Lyle St., Waco, Mrs. G. W. Anderson 1, South ½ of George sur, 600 ft to E and 500 ft to S line.

Montague County—Pure Oil Co.'s Mexia, J. W. Maddox 1, H. S. Arnold sur, 950 ft to W and 150 ft to S line.

Orange County — Orange Petroleum Co.'s, Orange, O. Chesson 9, Wm. Dyson sur, 135 ft E No 11.

Panola County — Magnolia Petroleum Co.'s, Dallas, W. W. Devlin 2, B. C. Jordan sur, 2508 ft to N and W lines.

Shackelford County — Moutray Oil Co. & Reiter-Poster Oil Corp.'s, Cisco, C. B. Snyder 8, S 36, L. A. L. sur, NW cor. E. M. Powell's, Moran, S. S. Diller 1, S 42, L. A. L. sur, 150 ft to N and E lines; 2, same sur, 300 ft W No. 1; 3, same sur, 300 ft S No. 1. Mid-Kansas Oil & Gas Co.'s, Tulsa, Okla., W. P. Newell 1, S 114, E. T. Ry sur, 500 ft to W and 1100 ft to S line. Nye & Co.'s, Moran, S. S. Diller 1, S 54, L. A. L. sur, 150 ft to N and W lines. H. H. Diamond's, Holdenville, Okla., T. L. Terry 1-B, S 47, L. A. L. sur, 150 ft to S and E line. Texas Co.'s, Breckenridge, S. S. Diller 30, S 42, L. A. L. sur, 2053 ft to E and 2075 ft to S line. Ray T. Hoff's, Moran, W. B. Beard 2, No. 65 L. A. L. sur, 450 ft to E and 150 ft to S line. Oglesby & Young's, Box 859, Breckenridge, L. P. Rice 1, S 72, L. A. L. sur, 890 ft to E and 150 ft to S line. Moutray Oil Co. & Reiter-Foster Oil Corp.'s, Cisco, C. B. Snyder 1-B, S 36, L. A. L. sur, 1405 ft to N and 150 ft to E line.

San Patricio County — Sigmund Unit Co.'s, Aransas Pass, McCampbell 6, McCampbell sur, 155 ft to E and 300 ft to S line.

Wichita County — Magnolia Petroleum Co.'s Dallas, M. Standiford 26, H. B. Balch sur, 50 ft N No. 21; H. Reilly 121, L. C. Dennison sur, 400 ft E No. 120. Bonchil Co.'s, Staley Bldg., Wichita Falls, H. Beach 26, C. T. Ry No. 4 sur, 100 ft W No. 16. Appel-Brandeberry Oil Co.'s, Wichita Falls, Mrs. G. Jennings 14-A, S 12, HT&B Ry sur, 50 ft S 7-A. Kemrow Prod. Co.'s, Box 148, Wooster, Ohio, Burnett-Lloyd 47, S 6, Burnett sur. W. L. Mann's, 601½ Ohio St., Wichita Falls, Roller Est 12, J. Munpford sur, 300 ft NW No. 10. Arco Oil Co.'s, Box 1020, Wichita Falls, T. L. Burnett 3, S 2, T&NO Ry sur, 300 ft W No. 1. Jno. O'Neil's, Wichita Falls, Rio Bravo 16, S 31, H&TC Ry sur, 310 ft W No. 14; Fee 16, S 23, H&GN Ry sur, 255 ft to N and 270 ft to W line. Williams, Conrey & McConnell's, Wichita Falls, E. Horton 8, BBB&C Ry sur, 300 ft N No. 5; 7, same sur, 300 ft N No. 4. Marcus & Davidson's, Box 993, Wichita Falls, M. A. Marcus 1, J. R. McDowell sur, 450 ft to N and 150 ft to W line. Camp Oil & Gas Co.'s, City Nat. Bank Bldg., Wichita Falls, Minden 6, J. McCool sur, 700 ft to N and 600 ft to W line; 7, same sur, 300 ft E No. 6. R. E. Burt's, Magnolia Bldg., Dallas, J. W. Van Horn 1, S 29, H&GN Ry sur, 150 ft to N and 1080 ft to W line. Karl ten Brink's, 2307 Grant St., Wichita Falls, Gaston 2, J. Aldrdige sur, 150 ft to N and 750 ft to E line; 3, same sur, 150 ft to N and E lines. W. A. Patterson's, F. & M. Bank Bldg., Ft. Worth, N. L. Lowrance 1, S 16, T. C. S. L. sur, 150 ft to W and 350 ft to S line. H. Jaffe's, Wichita Falls, B. F. Dutton 1, S 4, D. C. S. L. sur, B 8, 450 ft to N and 1050 ft to W line. Texhoma Oil & Ref. Co.'s, Wichita Falls, D. L. Horton 1, BBB&C Ry sur, 150 ft to S and E lines. Gulf Prod. Co.'s, Ft. Worth, S. Mitchell A-3, P. Castleman sur, 300 ft S No. 1.

Wilbarger County—Gulf Production Co.'s, Ft. Worth, W. T. Waggoner 2, S 50, H&TC Ry sur, 300 ft NE No. 1. Milham Corp.'s of Texas, Travis Bldg., San Antonio, W. T. Waggoner 2-H. S 42, H&TC Ry sur, 150 ft to S and W lines; 1-H, same sur, 300 ft NE No. 2-H.

Webb County—Johnson & De Tray's, 1715 Rosario St., Laredo, Mrs. C. G. de la Garza 1, No. 335 Blk. 20, 450 ft to N and 415 ft to W line.

Wheeler County—Midwest Exploration Co.'s. Box 972, Amarillo, Company 1, S 12, H&GN Ry sur, 330 ft to S and E lines.

Young County—Navarro Oil Co.'s, Box 1407, Wichita Falls, L. Parrish 1, 409 TE&L sur, 150 ft to S and W lines. C. Mooers et al's, City Nat. Bank Bldg., Wichita Falls, A. F. Ikert 9, B 17, I. Holman sur, 450 ft to S and W lines. Gulf Production Co.'s, Ft. Worth, W. B. Cheves 3, H. B. Akles sur, 450 ft to W and 300 ft to S line; F. G. Swain 5, 161 TE&L sur, 450 ft to W and 300 ft to N line.

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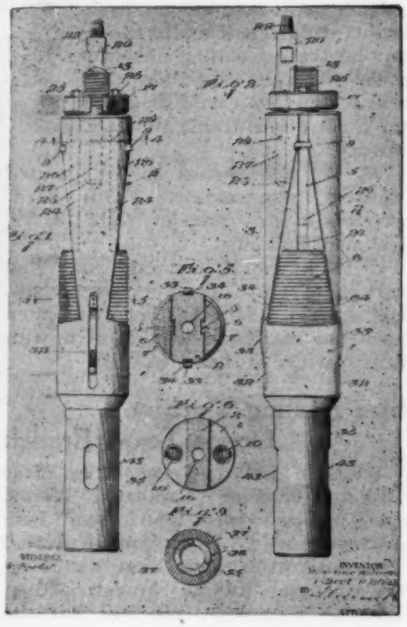
NEW EQUIPMENT, CATALOGS, BULLETINS, BOOKS

J-B Casing Coupler Saves Stripping Jobs

The J-B Casing Coupler, manufactured by the Jones-Everett Machine Company, Ardmore, Oklahoma, is designed to eliminate expensive stripping



J-B Casing Coupler diagramatic drawing

jobs that are sometimes necessary in the drilling of oil wells.

The lower part of the tool is constructed along the lines of a combination socket, with steel slips to catch the neck of a rope socket when tools are hung in or below the casing, or when the tool is used as a casing coupler a trip spear is connected at this point with the coupler.

The upper part is in the shape of an inverted spear, with slips to fit the casing used in the well, and has an ingenious device to trip the slips which are forced upward by springs. The slips grip the casing so the tool cannot pull downward, when the lower part is fast to the tools or spear and the upper part to the casing. This makes a solid connection and all can be pulled at one time.

An outstanding feature of this tool is that the upper slips cannot be tripped until the lower part is absolutely fast, which does away with the danger of bulldogging.

Where tools or bailers have been hung up in or below the shoe, the coupler has proved invaluable, and no failures have been experienced in bringing the tools to the surface where the casing could be pulled.

The method of operating the coupler is simple. The trip pin is threaded to fit two and one-half by one and five-eighths joints and is connected to rope knife sinkers, jars and swivel on the sand line.

In the case of tools being hung up, the coupler is constructed with a hole the entire length, and is let down over the drilling line by the sand line until it engages the rope socket, and when it is fast, a small pin is sheared, which releases the trip pin.

The springs shove up the slips to engage the casing. A wire rope knife is then lowered, cutting the drilling line above the rope socket, and the casing and tools are then pulled.

These couplers are being used extensively in Oklahoma and are giving excellent satisfaction.

Further informaiton can be secured by writing the Jones-Everett Machine Company, Ardmore, Okla.

Truck Winch Saves Space in Truck Bed

A new type of truck winch is now being manufactured by the Braden Company, Tulsa, Okla.

This winch is located on the rear wheel and is especially adaptable to oil field use. When not needed, the R-B winch, as it is called, turns with the wheel, is out of the way, and leaves the entire bed space available for load.

In action the winch drum revolves individually on the special hub, and is driven by the rear axle shaft, wheel remaining stationary. The axle shaft is engaged either with the wheel or with the winch drum through a sliding clutch which is operated by turning a nut on the outside of the drum cover.

The winch revolves independently of the wheel and there is no need of jacking up the wheel.

The Braden Company, Tulsa, will furnish other information regarding the winch, on request.

Braden Truck Winch

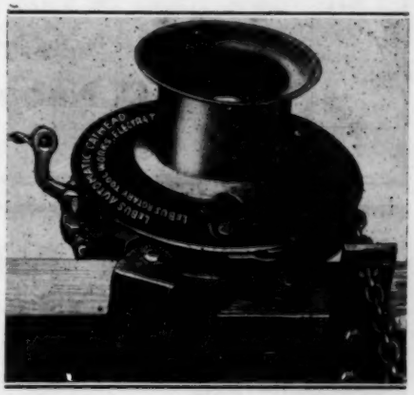
Safety Dominates New Automatic Cathead

An automatic cathead highly endorsed because of its safety features is now being manufactured and marketed by the LeBus Rotary Tool Works, Electra, Texas.

In drilling deep wells catheading is the recognized method of breaking and making. This is because catheading is the positive method.

In this operation, the hazard is great, however. Many fatalities have occurred because the rope on the cathead slipped or broke.

In the LeBus Automatic Cathead,



LeBus Automatic Cathead

control is in the hands of the driller. When the two pairs of long handled tongs, one break out and one back up, are latched on the joint, the driller pulls the control chain and the break is made instantly. The driller then throws in the rotary clutch and the joint spins out with no strain on the pipe or rotary.

This device makes and breaks both easy and hard joints with equal facility.

Additional information will be furnished upon request by the LeBus Rotary Tool Works, Electra, Texas.

Bulletins on Bearings

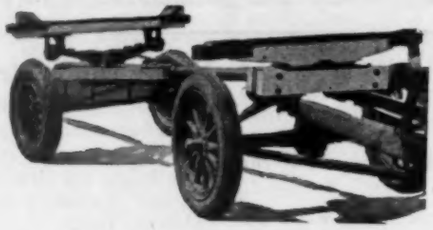
The Norma-Hoffman Bearings Corporation, Stamford, Connecticut, has issued two bulletins pertaining to bearings, one on "Norma" precision ball bearings, open and closed types, and the other on "Hoffman" precision roller bearings.

Copies of both bulletins will be mailed to any one interested, upon request.

Garlock Packing Catalog

A catalog featuring Garlock Metal Packing service and describing and illustrating that company's general line of metal packings, is ready for distribution by the Garlock Packing Company, Palmyra, New York.

The Garlock Packing Company maintains a corps of metal packing experts



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Spring Trailer, $295.00 F. O. B. Mansfield. Non-Spring Trailer, $250.00 F.O.B. Mansfield. All parts interchangeable in the two jobs.

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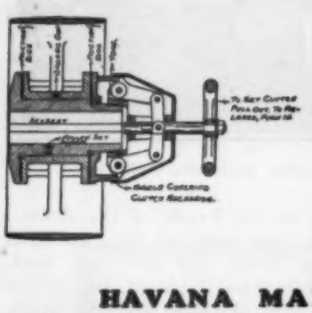

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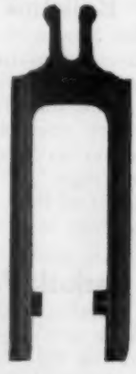

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12,000 acres University Permits, PECOS COUNTY, Dated Oct. 1, 1924, 5 years. The new law makes these permits most attractive. Can be subdivided into 40 acre tracts. Near Sun, Gulf, Dixie, California Company, Phillips, Arkansas Fuel, Humble holdings.

10,000 acres CROCKETT COUNTY. Large and small blocks; adjoining big companies; scattered wildcat. Also close-in adjoining World well block.

20 000 acres 10 year leases; low rentals; TERRELL COUNTY. Getting good play. Watch this county! Prices right.

5 000 acres Upton County. Scattered tracts, blocks for drilling.

60,000 acres one block—southeast PECOS COUNTY—on geological formation. Most attractive as to desirability, price and terms.

2,000 acres IRION COUNTY. 10 year lease; watch the new work here.

12,000 acres LOVING COUNTY. 10 year lease 10 cent rental. Right in line.

Write for prices and maps. Will allow time for geological inspection.

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Reference: Mercantile Agencies

who will be glad to co-operate with the maintenance division of oil companies, and the engineering departments, for the proper designing of stuffing boxes and special metal packing sets to meet the requirements of individual machines.

Copies of the catalog will be mailed upon request.

Thrift Corporation Opens Branch Offices

Houston, Texas.—The Thrift Corporation, Houston, manufacturers of hydraulic casing-pulling machines and other salvage specialties, announces that it now has established agencies in the State of California and at Tampico, Mexico.

W. W. Crosby has been appointed Western representative, with headquarters in Los Angeles, Calif., I. W. Hellman Building.

C. H. Reynolds, formerly connected with the Thrift Corporation as mechanical superintendent, has been appointed agent for the Republic of Mexico, with headquarters at Tampico.

Star Drilling Machine Opens Texas Branch

Wichita Falls, Texas.—The Star Drilling Machine Company, Akron, Ohio, opened a new branch store here on September 1. Heretofore the North Texas oil fields have been served by the Chanute (Kansas) branch factory. But the increasing number of Star machines in North Texas has made a near-by distributing point necessary.

The new branch carries a complete stock of Star machines, repair parts, drilling tools and cordage. It is under the supervision of Harry J. Larrick, district manager. A. W. Johnson will work out of the Wichita Falls branch as sales engineer, and C. A. Ahlers will manage the store.

Mr. Larrick is well known in the Mid-Continent fields, having put the four-cylinder gasoline motor Star super-tractors on the map in North Texas.

HARRY J. LARRICK

LETTERS OF Paul Peebles P.S.G.

mi deer cleopatry

well cleo hunny I am back agin from mi vakashun whitch was not but a weak long but as mutch as I cood stand bein away from mi bizness and bein this clost 2 yu. I am ritin 2 yu the first thing befoar I look over mi male whitch has bin pilin up sinct I was gone so that there is 2 or 3 letters from peeple & mabe sum from wimmen whitch is mi admires, but I aint goin 2 pay no atenshun 2 them for at least a few minnits until I hav writ 2 yu. I shore did miss yu wile I was gone hunny & wisht that yu was along with me.

everyboddy I hav saw sinct I gotten back has bin wantin 2 no about mi trip so I gess yu will be intrested 2, but I do not no a hole lot about it because I was drivin the car. but I will giv yu the log like this:

spudded in satterday mornin about 6 in the a. m.

concreat from the garredge to street.

gravel & sand 2 blocks 2 paved street

asfelt 2 citty limitts 4 miles

sand & bowlders 2 co. road

28.2—32.6, shell

32.6—68.6 gumbo and sand

68.6—92.4 asfelt 2 bomont. sines of oil at bomont so decided 2 set around till dinner, then et. then milled around & went 2 port arthur, so set agin & changed casin account of flat tire. et, slept and et. (show of oil).

drilled back into the main track & made orange, set agin at 159.0, et, slept, & et. (show of oil here on Cow bayou).

shell sand bowlders 2 221.9, set agin, et slep & et.

221.9—238.5, sand & bowlders,

238.5—245.3, sand, gumbo & bowlders, set, et, slep & et. seen a wildcat well, shut down, on account it was 2 clost 2 the road & rite clost 2 a creek full of water, whitch is 2 handy for finin' oil in a wildcat well.

pulled back 2 235 & milled out. struck the sabine rivver where it was not no ferry not mutch water but cood not shut it off without no ferry boat, so pulled back for a new start.

245-260, sand clay & bowlders. hit good flow of waters & shut it off with ferry bote.

260—350, sand, gravel & mud 2 lake charles, loosiana where it is anuther show of oil so i set there for two days & tested the eats whitch was pretty good. also I gotten 2 ride around sum in other peeples cars whitch was sum better for seein what is goin on, only I did not git 2 go 2 sea the wells whitch is drillin acrost the lake from the cuntry club only I seen them acrost the lake & they look a hole lot like all the other oil wells I ever seen so I do not gess I missed ennything mutch, eh hunny.

well that was the end of the trip so far as goin was concerned except I had 2 cum on back whitch I did safe & got back 2 huston in fine shape & I do not think I busted no harts while I was gone on account of I did not pay no atenshun 2 no wimmin hunny on account of I was thinkin about yu all the time, except the widder what I bordes bordes with & she was rite on the back seet all the time tellin me what 2 do & I defy a deef & dumm man what is paralized 2 fale 2 notis a woman whitch is ridin in the car whitch yu are drivin, espeshul if she has just got her hair bobbed.

well hunny it was a pretty good trip only on account of gittin lost 1 day we gotten off of the schedule & had 2 pay for our luntch. yu see we had it all planned out so that we wood git 2 plases where the widder whot I bordes with had folks whitch wood ast us 2 eat at about the critikal time for them 2 ast us, but on account of millin out 1 time we missed the skedule & I had 2 pay 35 sents for sandwiches & coffey, whitch was the onliest unpleasant part of the hole trip.

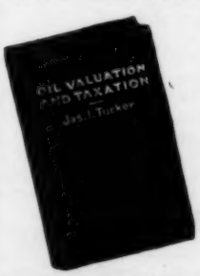
well hunny I did not entire forget about mi bizness while I was gone on account of what I told yu about observin mi speedometer 2 sea about lokatin oil with it. well it worked pretty good so far as I cood sea only it was 2 good in the wind up, because when I got neerly back 2 huston I cum bi a plase where a nigger had terned over a car rite in the middle of the road & spill the gasleen rite on the ground where I had 2 go bi & the derned speedometer quit rite there because it cood not register oil so clost as that. well I gess that prooves sumthin, eh cleo. of corse I did not hav no testin done where the spedometer says it is oil but I will get 2 that later & I am glad that she busted because now I can adjust her moar finer so as 2 be moar ackerater if I can git it back 2gether. yu sea I tooken it apart 2 fix it & it is sevral peeces left over when I put her back 2gether but I gess mabe it will be alrite bi the time I work her over agin.

well hunny one of the things whitch I seen while I was gone whitch will make the cabbul tool drillers tern green with envy was a rotry eatin table. it aint noboddy ever herd of a eatin table with no walkin beam on it, but I found 1 whitch has got a table in the middle whitch terns around so that yu do not hav 2 ast noboddy 2 pass yu the biskits. I shore did hate 2 hav 2 leev that place whitch is the only one I ever seen where yu did not hav 2 let talkin interfere with yore eatin.

well hunny I will close. yu will understand that I did not cum rite on down 2 sea yu because it is a quarrantine in between huston & goose creek now.

yore lovvin paul.

Oil Men: What is your "Oil Reserve" in the ground? Have you comprehensive operating records? Can you honestly claim to have an operating program? Can you adequateiy handle all these elements in your Income Tax problems?



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Summary of Field Operations for August

Eastern States

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Pennsylvania	186	151	21	14	1,049
West Virginia	93	35	40	18	514
Ohio	214	120	49	45	1,719
Kentucky	167	95	27	45	1,146
Illinois	42	29	4	9	808
Tennessee	3	..	1	2	..
New York	42	42	..	..	353
Indiana	18	9	..	9	125
Totals	765	481	142	142	5,714

PENNSYLVANIA

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Allegheny	1	..	1	..	..
Beaver	1	1	..	..	2
Bradford	103	98	..	5	350
Butler	18	9	5	4	25
Center-Middle	12	6	4	2	38
Greene	14	2	11	1	450
Kane	1	1	..	..	100
Venango	36	34	..	2	84
Totals	186	151	21	14	1,049

NEW YORK

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Allegany	26	26	..	..	69
Bolivar	16	16	..	..	284
Totals	42	42	..	..	353

WEST VIRGINIA

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Boone	4	1	3	..	35
Cabell	2	..	1	1	..
Calhoun	3	..	3	..	..
Clay	2	1	1	..	30
Doddridge	9	7	1	1	115
Kanawha	10	1	8	1	10
Lewis	5	..	1	4	..
Logan	5	..	5	..	..
Marion	2	2	..	..	10
Marshall	9	4	5	..	53
Mingo	2	2	..	..	40
Nicholas	1	..	1	..	..
Ritchie	15	4	6	5	49
Wayne	2	..	1	1	..
Wetzel	15	8	2	5	153
Wirt	7	5	2	..	19
Totals	93	35	40	18	514

KENTUCKY

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Allen	10	4	..	6	29
Barren	35	27	..	8	286
Cumberland	12	9	..	3	360
Estill	1	1	..	..	3
Floyd	6	..	6	..	..
Gilmer	3	1	2	..	12
Greenup	2	..	2	..	12
Harrison	4	..	1	3	..
Johnson-McGoffin	10	10	..	..	44
Lawrence-Johnson	5	5	..	..	82
Lee-Owsley	2	2	..	..	12
Lincoln	1	..	1	..	..
Monogalia	1	..	1	..	..
Morgan	11	7	3	1	50
Muskingum	2	..	1	1	..
Owensboro	14	8	..	6	121
Pleasants	10	5	2	3	17
Putnam	1	1	..	..	9
Roane	8	2	4	2	24
Tyler	2	1	1	..	2
Warren	11	3	..	8	12
Wayne	8	2	3	3	45
Wood	8	7	..	1	26
Totals	167	95	27	45	1,146

TENNESSEE

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Dekalb	2	..	..	2	..
Putnam	1	..	1	..	..
Totals	3	..	1	2	..

INDIANA

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Delaware	1	..	..	1	..
Gibson	3	2	..	1	35
Jay	7	4	..	3	40
Pike	3	1	..	2	10
Sullivan	4	2	..	1	35
Totals	18	9	..	9	125

ILLINOIS

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Arthurs	1	1	..	..	50
Clarion	11	7	1	3	25
Clark	8	8	..	..	251
Coles	1	..	..	1	..
Crawford	5	4	..	1	33
Eagles Furnace	1	..	1	..	..
Fern	1	1	..	..	2
Lawrence	3	3	..	..	155
Marion	4	2	..	2	70
Wabash	2	1	..	1	215
Washington	5	2	2	1	7
Totals	42	29	4	9	808

OHIO

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Allen	7	7	..	..	66
Ashland	5	..	5	..	..
Athens	15	4	7	4	32
Auglaize	9	8	..	1	105
Columbiana	3	2	..	1	4
Coshocton	2	2	..	..	118
Darke	2	..	..	2	..

NECO
Traveling Valves

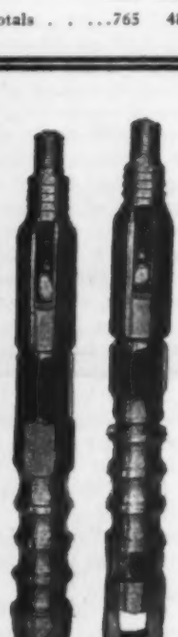

Fig. 22 Fig. 21

We wish to call attention to the rigid construction of NECO traveling valves. Note wide locknut and extension crowns. Fig. 22 has solid bottom rings and cups go on from top and cannot get loose in working barrel.

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County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Fairfield	6	4	1	1	110
Hancock	7	6	1	..	49
Hardin	3	3	..	..	65
Hocking	13	6	4	3	182
Holmes	14	6	2	6	279
Hopkins	1	1	..	..	5
Jefferson	3	..	..	3	..
Knox	7	3	4	..	6
Licking	16	11	4	1	52
Lorain	10	..	7	3	..
Lucas	1	1	..	..	12
Medina	7	3	1	3	49
Mercer	9	7	..	2	82
Monroe	2	2	..	..	10
Noble	7	2	2	3	4
Ottawa	3	3	..	..	43
Paulding	4	4	..	..	65
Perry	7	6	..	1	5
Sandusky	7	7	..	..	34
Shelby	6	4	..	2	134
Summit	1	..	1	..	..
Van Wert	2	2	..	..	25
Vinton	1	..	..	1	..
Washington	24	9	10	5	25
Wood	10	7	..	3	168
Totals	214	120	49	45	1,719

California

Athens-Rosecrans	22	22	..	..	21,785
Baldwin Hills-Inglewood	26	24	..	2	30,530
Brea-Richfield	1	1	..	..	2,100
Dominguez	7	5	..	2	2,185
Elk Hills	2	2	..	..	120
Hermosa	1	..	..	1	...
Hunt. Beach	7	7	..	..	1,285
Hovey Hills	2	2	..	..	200
Long Beach	16	15	..	1	7,568
Midway	7	5	..	2	6,510
Montebello	2	1	..	1	150
Newport	1	1	..	..	40
South Kern River	1	1	..	..	175
Sunset	4	4	..	..	6,210
Torrance	12	10	..	2	1,044
Ventura	4	4	..	..	7,140
Wheeler Ridge	2	..	..	2	...
Whittier	1	1	..	..	200
Wildcats	1	..	..	1	...
Totals	119	105	..	14	87,242

Mountain States

Wyoming	53	48	..	5	5,425
Montana	51	42	1	8	15,675
New Mexico	6	6	..	..	1,190
Colorado	3	3	..	..	2,576
Utah	..	..	..	..	...
Totals	113	99	1	13	24,866

WYOMING

Big Muddy	1	1	..	..	50
Grass Creek	2	1	..	1	50
Foote Anticline	1	..	..	1	...
Enos Creek	1	..	..	1	...
Little Lost Soldier	1	..	..	1	...
Osage	1	1	..	..	10
Salt Creek	46	45	..	1	5,315
Total	53	48	..	5	5,425

MONTANA

Cat Creek	1	1	..	..	25
Kevin Sunburst	50	41	1	8	15,632
Total	51	42	1	8	15,657

COLORADO

Iles Structure	1	1	..	..	576
Moffatt Dome	1	1	..	..	1,000
Wellington Dome	1	1	..	..	1,000
Total	3	3	..	..	2,576

NEW MEXICO

Artesia	5	5	..	..	1,165
Rattlesnake Dome	1	1	..	..	25
Total	6	6	..	..	1,190

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OKLAHOMA

County—	Completions	Producers	Gas Wells	Failures	Initial Prod.
Alfalfa	1	..	..	1	...
Carter	13	8	..	5	650
Caddo	1	1	..	..	30
Comanche	2	..	..	2	...
Cotton	..	..	..	..	...
Creek	43	22	3	18	2,884
Garfield	24	21	..	3	4,692
Garvin	1	1	..	..	1,445
Grant	3	..	..	3	...
Grady	3	..	3	..	...
Hughes	32	9	2	21	3,482
Jefferson	3	2	..	1	215
Kay	23	16	1	6	17,431
Kiowa	..	..	..	..	...
Kingfisher	..	..	..	..	...
Lincoln	12	8	1	3	2,695
Logan	..	..	..	..	...
Love	1	..	..	1	...
Mayes	..	..	..	..	...
Muskogee	1	..	..	1	...
Noble	5	1	2	2	24
Okmulgee	46	33	5	8	7,648
Okfuskee	25	12	3	10	4,815
Osage	68	42	6	20	3,100
Payne	4	3	1	..	860
Pittsburgh	1	..	..	1	...
Pawnee	19	8	2	9	2,203
Pontotoc	..	..	..	..	...
Pottawatomie	1	..	..	1	...
Seminole	11	7	..	4	1,045
Stephens	11	7	1	3	402
Tillman	..	..	..	..	...
Tulsa	28	14	2	12	495
Waggoner	9	3	1	5	60
Woods	1	..	..	1	...
Totals	392	218	33	141	54,176

OKLAHOMA PRODUCTION FOR AUGUST BY FIELDS

Field—	Barrels
Burbank	1,684,295
Tonkawa	1,807,350
Cromwell	947,825
Bristow	1,361,675
Osage (Outside Burbank)	1,068,635
Wewoka	386,415
Okmulgee	781,200
Cushing	659,525
Gilcrease-Papoose	465,775
Braman	587,855
Hewitt	462,275
Garber	401,825
Otoe	180,125
Stroud	128,340
Thomas	80,660
Other fields	2,810,090
Totals	13,813,865

KANSAS

Butler	10	6	..	4	895
Chase	2	2	..	..	750
Chautauqua	1	1	..	..	25
Coffee	1	1	..	..	15
Cowley	29	19	1	9	4,570
Elk	11	5	1	5	550
Ellis	1	..	..	1	..
Greenwood	62	49	..	13	8,038
Kingman	1	..	..	1	..
Lyons	3	..	..	3	..
Marion	3	1	..	2	30
Mitchell	1	..	..	1	..
Russell	2	2	..	..	650
Sedgwick	1	..	..	1	..
Sumner	5	..	..	5	..
Trego	1	..	..	1	..
Woodson	12	3	1	8	140
Totals	146	89	3	54	11,663

AUGUST PRODUCTION FOR KANSAS BY FIELDS

Field—	Barrels
Greenwood	915,895
Rainbow Bend	383,995
El Dorado	442,585
Elbing-Peabody	183,445
Augusta and Douglas	104,625
Blankenship	84,475
Florence-Covert	61,445
Other fields	766,785
Totals	2,943,250

Louisiana

Field—	Com-pletions	Pro-ducers	Gas Wells	Fail-ures	Init. Prod.	Monthly Prod.
Anse La Butte	..	..	..	..	....	775
Bellevue	2	..	..	2	....	94,025
Bull Bayou	..	..	..	..	....	126,480
Caddo	3	3	..	..	280	360,780
Cotton Valley	7	7	..	..	890	341,125
Edgerly	..	..	..	..	....	17,175
Elm Grove	..	..	..	..	....	17,670
Evangeline	4	1	..	3	500	24,490
Haynesville	..	..	..	..	....	300,270
Homer	..	..	..	..	....	201,125
Lockport	..	..	..	..	....	4,275
Monroe	1	..	1	..	....	.....
Sarepta-Shongaloo	..	..	..	..	....	.....
Vinton	7	7	..	..	3,535	270,070
Wildcats	5	..	..	5	....	.....
Totals	29	18	1	10	5,205	1,758,260

Arkansas

El Dorado	..	..	..	..	....	273,605
Irma	..	..	..	..	....	47,490
Smackover	139	106	16	17	79,110	6,215,280
Stephens District	1	1	..	..	10	55,335
Wildcats	11	..	..	11	....	.....
Totals	36	36	..	..	10,540	1,788,377

Texas

N. Texas	299	177	..	122	11,315	3,360,865
Central and W. Texas.	83	38	..	45	10,660	2,145,285
E. Texas	7	..	7	..	....	.....
E. Cen. Tex.	31	20	..	11	960	3,013,510
Gulf Coast	66	36	..	30	14,249	2,754,820
Texas Misc.	..	..	..	..	....	1,374,725
Totals	486	271	7	208	37,184	12,649,205

NORTH TEXAS

Field—	Com-pletions	Pro-ducers	Fail-ures	Init. Prod.	Monthly Prod.
Archer Co.	132	72	60	4,285	1,147,350
Electra	31	16	15	610	535,835
Burkburnett	5	3	2	35	438,495
Young Co.	52	32	20	2,980	363,975
Wilbarger Co.	17	13	4	1,095	272,530
K-M-A & Iowa Prk	29	24	5	1,395	175,575
Panhandle district	5	5	..	*575	114,120
Montague Co.	3	2	1	105	13,020
Petrolia-Clay Co.	1	1	..	†	12,050
Baylor Co.	6	2	4	120	4,845
Throckmorton Co.	..	..	..	....	4,145
Jack Co.	..	..	..	....	1,010
Wildcats	18	7	11	‡115	.....
Totals	299	177	122	11,315	3,082,950

*Includes 2,500,000 ft. gas.
†Includes 1,000,000 ft. gas.
‡Includes 14,000,000 ft. gas.

GULF COAST

Field—	Com-pletions	Pro-ducers	Gas Wells	Fail-ures	Init. Prod.	Monthly Prod.
Barbers Hill	..	..	..	..	....	4,125
Batson	6	3	..	3	1,515	45,105
Blue Ridge	..	..	..	..	....	18,815
Boling	1	..	..	1	....	.....
Damon M'nd	..	..	..	..	....	34,440
Dayton	..	..	..	..	....	1,550
Goose Creek	4	2	..	2	220	300,700
High Island	1	..	..	1	....	16,430
Hull	17	14	..	3	8,800	589,250
Humble	..	..	..	..	....	138,601
Long Point	1	..	..	1	....	....
Markham	..	..	..	..	....	2,325
Nacogdoches	..	..	..	..	....	950
Orange	5	5	..	..	1,967	487,250
Pierce Junct.	..	..	..	..	....	12,960
Big Creek—(Richmn'd)	3	1	..	2	50	33,510
Saratoga	..	..	..	..	....	50,685
Spindletop	3	1	..	2	12	34,535
S. Liberty	12	7	..	5	1,425	501,890
Sour Lake	3	1	..	2	150	136,925
W. Columbia	2	2	..	..	110	344,795
Wildcats	8	..	..	8	....	.....
Totals	66	36	..	30	14,249	2,754,820

EAST CENTRAL TEXAS

Field—	Com-pletions	Pro-ducers	Fail-ures	Init. Prod.	Monthly Prod.
Corsicana-Powell	21	14	7	340	1,425,265
Wortham	..	..	..	....	842,580
Mexia	..	..	..	....	585,395
Richland	7	6	1	*620	121,560
Currie	..	..	..	....	38,710
Wildcats	3	..	3	....	.....
Totals	31	20	11	960	3,013,510

*Includes 1,000,000 ft. gas.

CENTRAL WEST TEXAS

Big Lake-Reagan Co.	6	6	..	9,285	986,770
Stephens Co.	23	10	13	*365	449,500
Eastland Co.	14	4	10	95	310,930
Shackelford Co.	10	4	6	280	107,805
Callahan Co.	2	..	2	....	97,340
Brown Co.	17	12	5	565	94,320
Mitchell Co.	3	2	1	70	68,240
Palo Pinto Co.	..	..	..	....	19,685
Coleman Co.	1	..	1	....	7,400
Scurry Co.	..	..	..	....	1,940
Thrall-Williamson County	..	..	..	....	1,355
Wildcats	7	..	7	....	.....
Totals	83	38	45	10,660	2,145,285

*Includes 5,000,000 ft. gas.

EAST TEXAS

County—	Comple-tions	Pro-ducers	Gas Wells	Fail-ures	Initial Prod.
Waskom Gas Field	7	..	7	..	..
Panola Gas Field	1	..	1	..	..
Totals	8	..	8	..	..

TEXAS MISCELLANEOUS

Field—	Com-pletions	Pro-ducers	Gas Wells	Fail-ures	Init. Prod.	Monthly Prod.
Luling	..	..	..	..	....	736,405
Mirando	..	..	..	..	....	226,300
Lytton Spgs.	..	..	..	..	....	313,845
Somerset	..	..	..	..	....	81,715
Misc. S. Texas	..	..	..	..	....	16,460
Wildcats	..	..	..	..	....	.....
Totals	..	..	..	..	....	1,374,725

New Gasket Company Now Running at Capacity

Chicago, Ill.—The Chicago-Wilcox Manufacturing Company announces that it is now in full production at its new plant, Seventy-seventh Street and Anthony Avenue, Chicago.

This company is the amalgamation of the Chicago Gasket Company and the Wilcox Manufacturing Company.

The company is now able to meet the need for every form and type of gasket, washer and shim, as well as for their Wilcox gaskets.

The new plant has a capacity 1000 per cent greater than the combined capacity of the two former companies.

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This is the tool that will take the grief out of your sucker rod fishing jobs. We absolutely guarantee to do this.

Standard Sucker Rod Pin

Has only one set of slips. And they are long enough to allow the broken rod to enter far enough to insure gripping.

Special Tempered Steel Spring

A Steel plug that carries the three slips by means of three steel pins pressed into the plug

Slips are special heat treated and guaranteed not to break

Bowls or Guide Noses threaded to fit this end

Patent applied for

The O. W. Combination Rod Socket will catch any rod from 5/8-inch to 7/8-inch without changing slips.

It can be run in 2, 2½ and 3-inch tubing by simply changing the bowl or guide nose on the lower end.

Only one bowl furnished with each socket.

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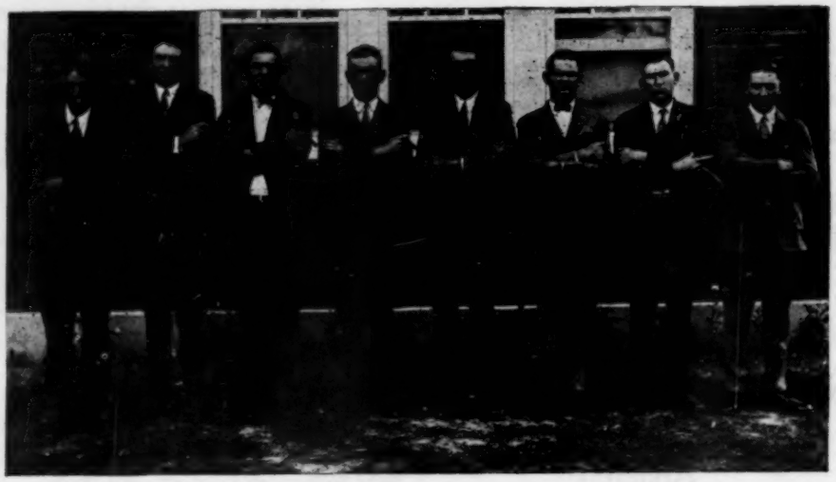

Father and seven sons, all drillers, began oil field careers as roughnecks with Spindle Top Boom. As they were at family reunion in May, 1925. Left to right: R. C. Johnston, Sr., Blaine, J. L., M. O., E. C., Edwin and R. C. Johnston, Jr.

When a Family Goes In for Oil!

THIS family of father and seven sons challenges the wold today to equal it in putting man-power material into the oil industry. The photograph represents this family, B. C. Johnston, Sr., 68 years of age, and the seven sons, ranging in years from 21 to 40, all of whom are either drillers or have risen from that status of the game to higher positions in the oil industry.

Nor is eight drillers the limit of the Johnston family in supplying labor material and official advice to the oil industry. There are two daughters in the family, both the wives of oil-well drillers. J. R. Beddingfield, drilling foreman for the Lanier Drilling Company at Eldorado, Ark., is the son-in-law of R. C. Johnston, and early this year the younger daughter of the family was married to E. Clark of Houston, oil field supply salesman.

Parker County, Texas, was, until the Spindletop boom, the home of the family of R. C. Johnston, who came to that section of the state with the pioneers during the early days of Texas. With the opening of the Spindletop field it was that the father, with his family, moved to Beaumont to make his home; and it was in this field that every member of the group of eight began his oil field career.

They started at the bottom as the rankest of "roughnecks." Together they toiled in the slime and slush well known in early Spindletop, each of the younger members of the group joining the crew as he arrived at the age sufficient to make the "roughneck's grade."

But the Johnstons were not the class of material that stayed long at the bottom of any business. They wanted to learn why as well as how to do it. Now there are members of the Johnston family of Spindletop's early days telling oil field novices in four of the nation's leading oil-producing states how to do it.

R. C. Johnston, Sr., after more than 20 years of service in the oil field, has changed to the refining end of the business. Recently he moved with his wife to Pasadena, near Houston, and built a home to retire from active work. But he could not give up all connection with the industry, and is now a member of the force operating the Crown-Central Petroleum Corporation's refinery, located at Pasadena.

Blaine Johnston, 40, eldest of the seven sons, is now general superintendent of production for the Crown-Central, with offices in Houston. J. T. Johnston, 38, is vice president and general manager of the Arkansas Drilling Company, Camden, Ark., with M. O. Johnston, 32, his drilling foreman. J. L. Johnston, 34, is at present a drilling contractor at Orange, Texas. E. C. Johnston, 28, is general manager of the National Drilling Company, headquarters at El Dorado, Ark. Edwin Johnston, 24, is a driller for the Hunt Drilling Company at El Dorado. R. C. Johnston, Jr., the seventh son, 21, is a driller for the Crown-Central Petroleum Corporation at El Dorado. At the age of 19 he joined the ranks of the driller.

During the oil field careers of the Johnstons, members of this family together have served in the employ of more than 50 oil companies throughout Texas, Oklahoma, Arkansas and Louisiana, to which states their work has been confined. The father and seven sons are credited with having brought in more than 500 producers in these four states, some of which are the larggest producing wells in the Smackover field. J. T. Johnston is responsible for the famous Smackover Burton well, which created some of the greatest excitement during the boom when it was completed for 40,000 barrels.

The photograph was taken at the home of Blaine Johnston, 2102 McGregor Avenue, Houston, during a recent family reunion.

To Be Effective, the Openings Between the Wire on Any Wire-Wrapped Screen

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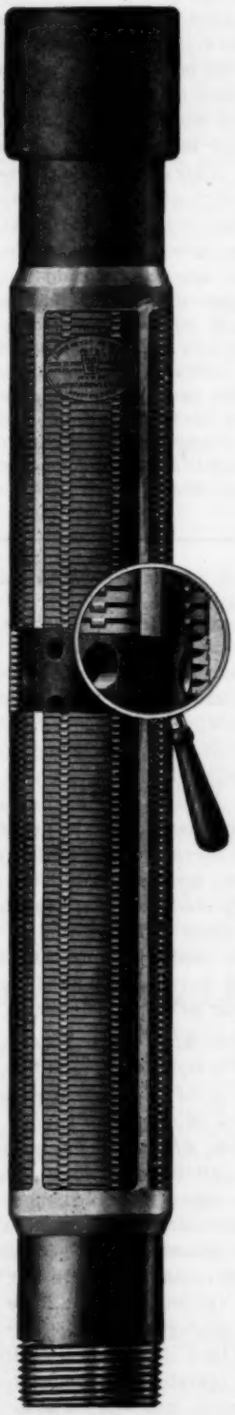

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We discontinued manufacturing the type of screen displayed on the right more than 13 years ago.

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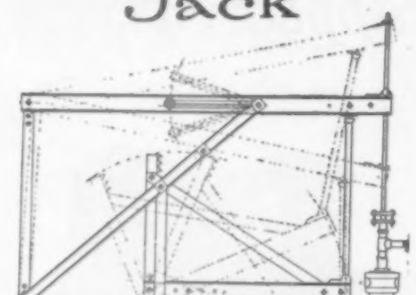

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The Jensen Jack

gives this and at the same time lessens wear on the polish rod and stuffing box.

Increased production naturally results while operating costs are reduced.

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Desk Calendar Is "Tickler" For Lease Record

By John Lane, Tulsa, Okla.

Much has been said about tickler systems for bringing the provisions of leases before the proper parties in proper time so they will not be defaulted unintentionally. Much space has been devoted to various methods used for this purpose but despite all the attention this subject has been given there is never a day goes by that one or more leases are not forfeited through oversight or negligence. This item has been one of the most costly entered against the operating division of the industry. Serving as a clearing house for suggestions toward reducing this loss the industry's literature has assisted greatly. However, campaigns to continue to be effective must be persistent. With this thought in mind we are passing along the accompanying idea which one producer has found excellent in meeting the needs of the small operator.—The Editor.

THE small producer—say, with from 25 to 50 leases—has no need for a lease record system such as necessary for the larger companies but it is imperative that some sort of a tickler system be devised to bring the provisions of the leases before him. The small producer usually knows offhand the conditions surrounding his leases, such as offsets, geology, location and drilling obligations and for that purpose he needs but some sort of permanent record rather than a tickler arrangement. The only thing he really needs a tickler system for is the rental dates and it is well to also strengthen his memory on the dates on which drilling may be obligated by incorporating that in the tickler system.

Take my company, which I believe is typical of the average small producer. We have a local office of which a geologist and all around oil man is in charge. He has to help him, stenographic help, an accountant, an assistant geologist, sometimes two or three if needed, and field men. We have thirty-three leases at this writing. The accountant and geologist in charge of the management are the only ones needing reminders of the lease provisions. The geologist in charge takes the place of the land department, geological department, operating department and other departments into which a large company is organized and so we have a central authority to decide lease questions.

When a lease comes in, it is summarized by the accountant on a form we use for recording our leases concisely. He

then looks especially to the rental provisions and drilling provisions, if any, and enters a notation on a calendar desk pad (we use two sheets for each date, one which is trade-marked "Gem") on a leaf dated one month ahead of the next rental date of the lease. He also enters this same notation on the manager's similar calendar pad. As he turns the leaves day by day this leaf on which the notation is made will eventually come up, showing a rental due on, say, Hall lease one month from today. tI has likewise come up on the manager's tickler the same morning. The accountant then carries the notation forward day by day for about a week. If by then he has had no instructions from the manager about it he asks him whether they are going to pay the rental. In the meantime the manager has probably considered the various angles of the matter and has reached a decision, instructing the accountant to issue a check in payment or otherwise disposing of it. If the manager has not reached a decision the accountant continues to carry the notation ahead day after day, up to the very last day when some action must be taken if the lease is not to be forfeited. There is no possible chance, outside of something beyond the control of man, of both he and the manager overlooking the matter. The month's time in which the manager has to consider the matter gives him ample opportunity to discuss the lease with associates and to obtain any particulars he desires.

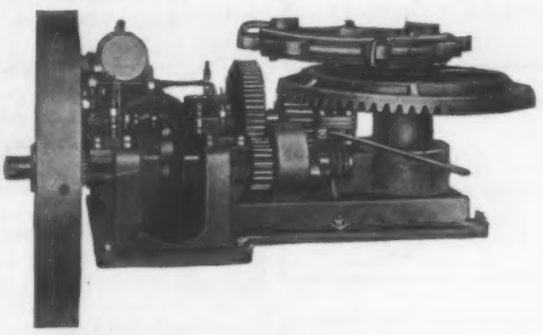
Incidentally, to guard against the possibility of the accountant making a mistake in setting up the notations on the tickler, after he has checked and rechecked his work at the time the lease comes in, our stenographer two or three days later, to avoid a perfunctory examination, is asked to check over the provisions independent of the accountant. She checks up the accountant's entries on the tickler and in that way the possibility of error in original entry is extremely remote.

I think any office man for a small producer will find this simple method very satisfactory. It can of course be amplified to include the carrying of other points some leases may require.

Builds Gas Line From Chickasha to Duncan

Dallas, Texas.—Thirty miles of sixteen-inch line pipe is being strung by the Hall-Briscoe Corporation from the Chickasha, Oklahoma gas field to connect with the Lone Star Gas Company's gathering system in the Duncan, Oklahoma field, following the consummation of a contract recently by Lone Star officials with the former concern. The line is to be completed about October 1, and will provide a surplus of gas for the Lone Star Gas Company to meet its peak demand from Texas cities and towns during the winter months.

The Hall-Briscoe Corporation maintains headquarters at Chickasha, and is capitalized at $1,000,000. The officers of the concern are: F. C. Hall, Chickasha, president; H. J. Morlang, Ft. Worth, vice president; and Powell Briscoe, Chickasha, secretary-treasurer.



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Standard Pumping Rigs Increase Luling Production

Luling, Texas.—There is a better demand for Luling crude than there has been for some time past. Production reports for the past two weeks show an increase which is accounted for by the bringing in of two or three new wells in the proven area and through the use of standard rigs for pumping by which the companies have obtained greater returns from the old wells that were giving trouble from water encroachment.

In the main field the United North and South Oil Company has wells drilling on the C. F. Stair, G. W. Proctor and C. H. McKinney leases in addition to its three on the Kelly, Tiller and Shanklin leases.

Two fishing jobs have held up the work on new wells in addition to the fishing job that has caused a delay of several weeks on the Kelley deep test, where a string of 5500 feet was lost in the hole. Progress on the Shanklin has also been delayed by a cavity encountered by the drill around 2500 feet that has caused the crew considerable trouble.

The Magnolia's wildcat on the D. M. Day lease south of the production area in Guadalupe County is drilling steadily now after being delayed somewhat on account of the failure of the water supply.

California Flashes

Los Angeles, Calif.—Milham Exploration Company's wildcat well at Playa Del Rey will drill deeper after having found nothing of importance down to 4905 feet.

Los Angeles, Calif.—West Coast Oil Company tried a production test on its Beverly Hills wildcat at 4979 feet, but failed to make a showing.

Los Angeles, Calif. — Attempt of Shell Company of California to develop an eastern extension of Santa Fe Springs with its La Mirada wildcat seems futile after having made no showings down to 5900 feet.

Union Oil Company has opened three new distributing stations, located at Yerington, Nevada; Sequin, Washington; and Gresham, Oregon.

Fort Collins, Colo.—Reports that the Union Oil Company will build a $100,000 refinery here may result in opening up a certain amount of production that has been closed in. Locally, the practice in many instances lately has been to complete a well and then shut it in.

Compton, Calif.—Marland Oil Company of California continues its efforts at making a thorough test for deep production in the Dominguez field with its No. 7, a wildcat doomed several weeks ago in the eyes of many operators. The well is below 6030 feet.

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Drill Pipe Float

Doubles the life of wire lines and brake bands, and relieves the excessive strain on derrick and other equipment. Serves as a safety device by preventing any serious accidents or damage due to parting of string. The unobstructed large opening below the valve affords free passage for fluid and permits perfect circulation at all times. It is inserted between tool joints, which enables easy inspection of valve at frequent intervals. Made from high quality steel of great strength and durability. Sizes 3", 4", 5" and 6". When ordering, give type of thread, number of threads, and taper.

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But Not Our Fitting

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JEFFERSON craftsmanship approaches so close to perfection that the user of JEFFERSONS can bank on at least OUR part of his pipe lines STANDING UP. The materials we use—high grade air-refined malleable iron and brass combined with JEFFERSON design—give greater strength than you will ever need. Our patented method of inserting the seat ring, our care in threading, and every other detail of workmanship—insure the properly installed JEFFERSON absolutely against leakage. Try JEFFERSONS—the leaders in their field—on your next order.

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Figure—15

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Capacity each pump 90 Gallons per minute.

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We will furnish on request Specifications, compiled by high grade, experienced rig builders, of derricks, standard rigs and oil field woodwork construction in general use in the various producing fields.

Mystery Surrounds Tests In Luling Field Section

Luling, Tex.—While nothing is being made public by the United North & South Oil Company in connecton with its three deep test wells, it is generally reported that something of interest is about to happen in one of them. Many operators who were here during the days when the field was at its peak, and afterwards went to other fields, are coming back daily.

One large teaming contractor who has in the past worked extensively for the North and South, is shipping in feed by the carload for a large number of teams that are said to be en route to Luling.

The extensive acreage blocks that have been taken by the company at a cost of around $100,000. All of the contracts and leases specify that they cover on production only that comes from 2500 feet below, while the average depth of the present producing wells in the Luling field is only about 2150 feet.

The Magnolia Petroleum Company has erected a heavy type derrick and rigged up with machinery capable of drilling 5000 feet on No. 1 Day well, south of the Guadalupe County production area. The well will be spudded in by the end of this week.

Receiver Dismissed in Gladys Belle Muddle

Tulsa, Oklahoma, Aug. 24.—Affairs of the Gladys Belle Oil Company were further complicated August 22 when Federal District Judge F. E. Kennamer issued an injunction restraining John G. Catlett from acting as receiver of the company. He had been appointed by Judge Luther James of the Tulsa County District Court.

In issuing the order, the federal judge instructed the receiver to return all properties that come under his control and to appear in federal court August 26 to show why the injunction should not be permanent.

Affairs of the Gladys Belle and the Marquette Oil Corporation has been the cause of disagreement among stockholders over a long period. Financial difficulties arose shortly after the depression of 1920.

"My dear sir, I am flattered by your staying to hear the remainder of my story when all the other passengers ran away at the sound of the dinner-bell," said the ocean-going pest to his sole remaining listener.

"What, has the dinner-bell rung?" asked the slightly deaf listener, as he hurried off to the dining room.—Dartford (Eng.) Chronicle.

"Do you ever take anything?" asked the old roomer casually.

"Sometimes," replied the new boarder, brightening up.

"Then be careful," advised the old reprobate, "for our landlady is very finicky about missing towels and silver ware."—American Legion Weekly.

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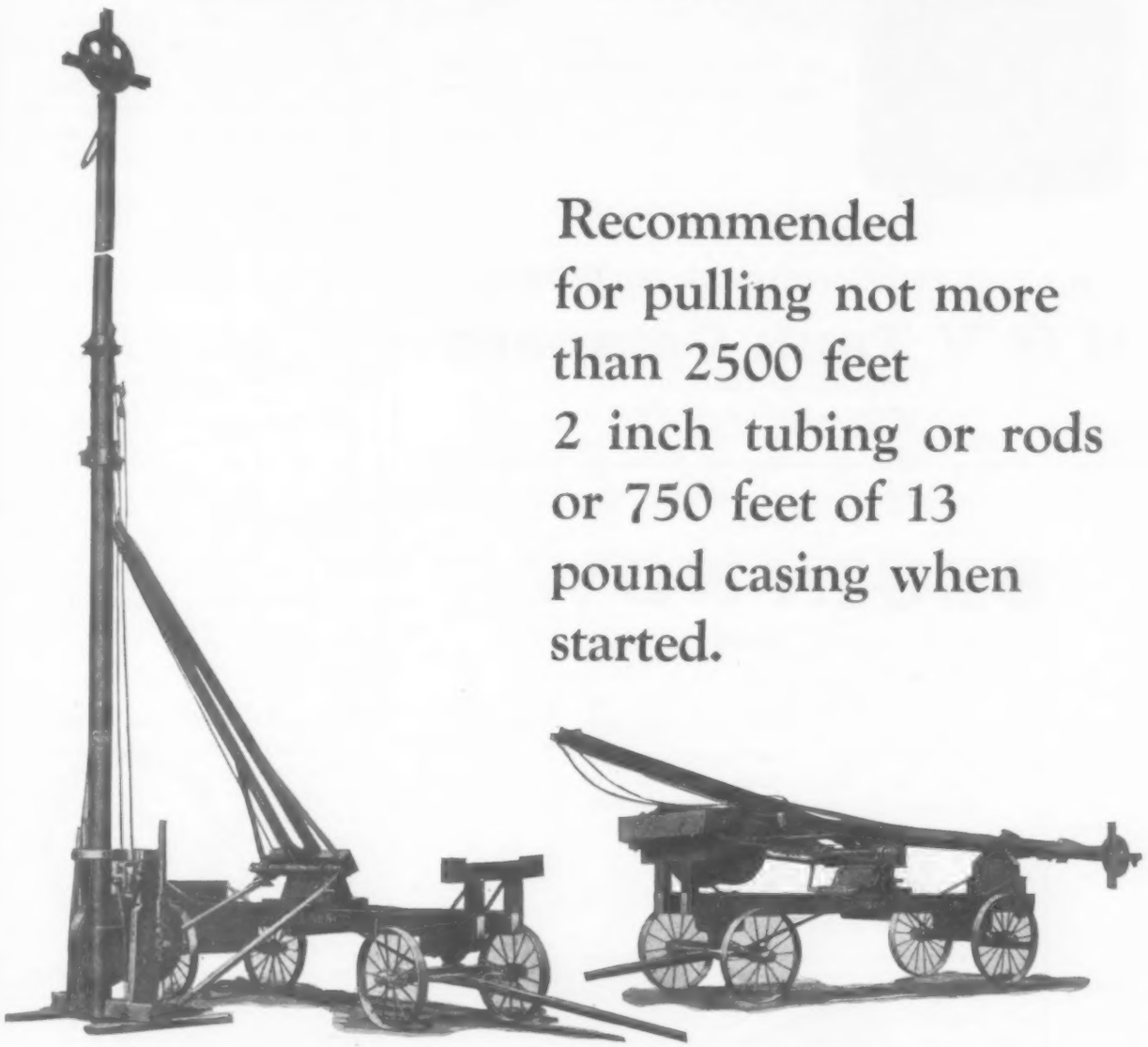
PULLING MACHINE



Recommended
for pulling not more
than 2500 feet
2 inch tubing or rods
or 750 feet of 13
pound casing when
started.

THE NATIONAL SUPPLY COMPANIES

Is $210.00 Every Month Worth Having?

Visiting a little old property last week we found four wells producing 20 barrels daily, pumping into an open top wood tank and thence to light steel tanks the milk can covers of which had been rusting out in the adjacent mesquite for years.

The oil was just one degree Baume less than the higher grading, although hydrometer test at the casing head showed gravity well above the dividing line.

The installation of a small Em Vee Sight Feed Separator and two 65-barrel M & V stock tanks, all with tight tops, raises the gravity 25 cents per barrel and saves 30 barrels a month evaporation.

WE REPEAT—Is $210.00 a month worth having?

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"Conservation Tankage"
WICHITA FALLS, TEXAS

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If you don't use STEELEX Balls and Seats—begin now.

Ask your dealer for the red and gold box which contains the STEELEX —made for use where excessive sand cuts the ordinary ball and seat. A pleasant, profitable surprise awaits the producer using STEELEX for the first time.

The Charles N. Hough Mfg. Co.
Franklin, Penna.

Products that cut down your underground overhead

Gulf Production Completes Six Producers at Lockhart

Lockhart, Texas. — Completing six new producers for 1650 barrels flush production during the past week, the Gulf Production Company leads the Lockhart field in activity. Following the success of the six tests, the company announced eight locations on the Beaty lease.

Four of the completions were made on the Cardwell lease in the southern extension pool. The Nos. 11, 17 and 19 Cardwell wells are making around 250 barrels apiece, while the No. 16 is producing around 400 barrels. Nos. 18 and 20 Beaty came in for a combined production of about 500 barrels. The wells are producing from the regular 1600-foot formation.

The Humble Oil and Refining Company also plans an active campaign in the main field, making locations for seven wells to be drilled on the Cardwell lease.

The Magnolia Petroleum Company, which got a dry hole in its Beaty lease, to the west of the Humble and Gulf wells and in the edge of the field, has skidded the derrick over to a location on No. 9.

The Eagle Drilling Company got the largest producer of the week on the Cardwell lease. It is making about 800 barrels from 1600 feet.

An interesting wildcat is the Thomas-Jordan five miles east of Lockhart. The bit in this test rests at 1400 feet. Gas and oil showings have been encountered all the way down. The formation the drill is now in is said to be green shale, and a core was taken at that depth with an odor of oil. Hard gumbo has made the drilling of this test slow and hard sand rock at the top caused some trouble. The Taylor-Marl was found at 800 feet.

General Petroleum Earnings Show Less Than Last Year

San Francisco, Calif.— One share of common stock of the General Petroleum Corporation earned $5.49 during the fiscal year ending June 30, according to the corporation's report issued August 25.

Net profit from operations during the above 12 month period totaled $11,115,004, a decrease of $2,632,314 from the net profits of the previous 12 months.

During the year the organization spent $1,468,020 covering losses resulting from abandoned leases, dry holes, and disposal of other capital assets, and $1,379,846 for labor and incidental expenses on drilling wells.

Production of the General Petroleum Corporation for the year totaled 10,065,412 barrels, as compared with 17,310,658 barrels the year previous. Increasing its storage to slightly over 18,500,000 barrels during the year, oil held by the General Petroleum Corporation at the end of June amounted to 15,693,745 barrels.

A Letter - THAT MEANS SOMETHING-

DUDLEY S. GOLDING
OIL PRODUCER & DRILLING CONTRACTOR
WICHITA FALLS, TEXAS

July 15, 1925.

Boykin Machinery & Supply Co,
Beaumont, Texas.

Gentlemen:

We wishto take this opportunity of adviaing you, that your rotaries which we have in use are holding up fine. We repacked the boxes on both rotaries after they had been on their fourteenth wells, and the bearings were not worn in the least. The drive bushings are also in good shape and the square blocks have not been turned as yet. There was not a loose nut on either rotary. The bearings in the travelling block were also examined, and they were in fine shape.

We will be glad to recommend your products to anyone, should you refer them to us as satisfied customers.

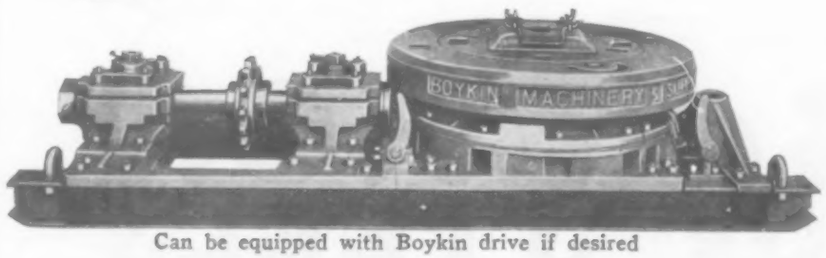
Yours very truly,

GOLDING & COCHRAN

By T B Cochran

TBC/J

Make & Break



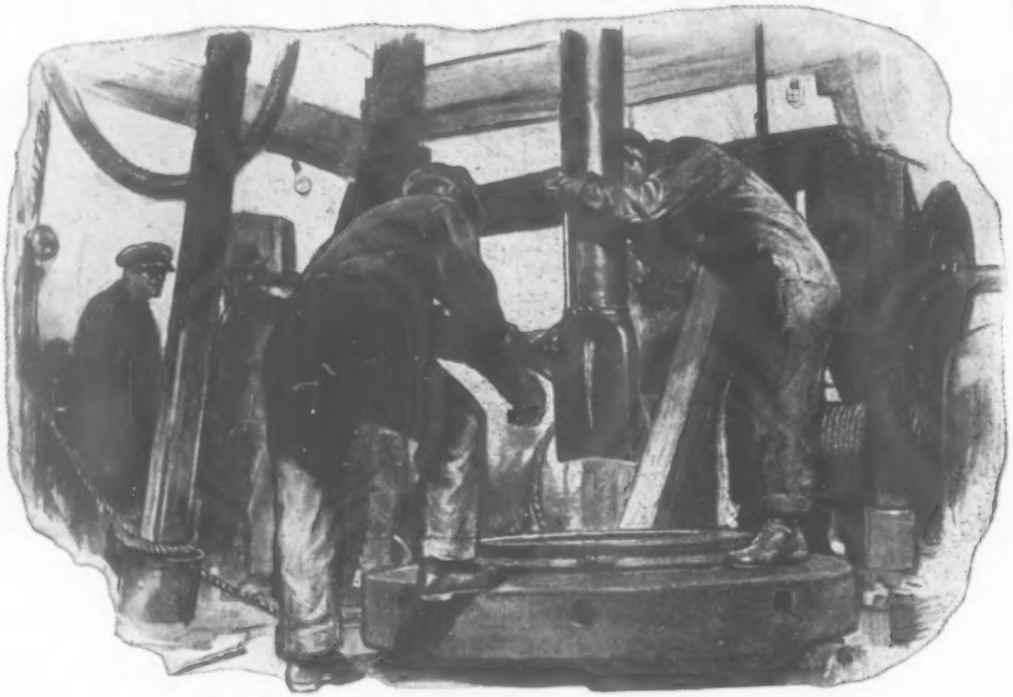
Can be equipped with Boykin drive if desired

Here is the "Greyhound" for "Speed and Endurance" in drilling.

Send for information and price.

Boykin Machinery & Supply Co. (Mfgrs.)

Beaumont, Texas



Is 83% of Your Drilling Time Spent Bringing Bits Up for Sharpening?

ONE large company using rotary rigs and regular steel bits found that only 17% of their drilling time was spent at the bottom of the hole with bit turning and 83% of the time was spent bringing bits out to be sharpened and returning them to the bottom of the hole. After adopting Agathon Steel for their bits, it was found that three times as much time was spent in actual drilling at the bottom of the hole. Does such economy and speedier drilling interest you? Then write for our Agathon Alloy Steel handbook and the assistance of our metallurgists in helping you select the analysis of steel best suited for your needs.

AGATHON STEELS

THE CENTRAL STEEL COMPANY, Massillon, Ohio

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AGATHON ALLOY STEELS

SQUEAKS FROM THE BULL WHEEL

A wealthy girl from America was attending a social function at a country house in England.

"You American girls have not such healthy complexions as we have," said an English duchess to the girl. "I always wonder why our noblemen take such a fancy to your white faces."

"It isn't our white faces that attract them," responded the American girl; it's our greenbacks."

A bank takes on a number of young men during the summer. On their salary receipts is printed a legend something like this:

"Your salary is your personal business—a confidential matter —and should not be disclosed to anybody else."

One of the new boys in signing this receipt added:

"I won't mention it to anybody. I'm just as much ashamed of it as you are."

"Georgie, dear, it's a burglar!"

"Sh-h-h, don't move, maybe he can get that window up; it's the one we haven't been able to open since the painters left."

"Do you play Mah Jongg?"

"What's that?"

"Oh, that's a game you play with little ivory blocks."

"Oh, yes, I play that. Why don't you say what you mean?"

Lawyer—"Well, I've proved that you are crazy, and you are, thanks to me, a free man. My fee is $5000."

Client — "But I'm not that crazy."

Diner (who has found a piece of wood in his sausage)—"Waiter I don't mind the dog, but I bar the kennel."

Husband—"Didn't I telegraph you not to bring your mother with you?"

Wife — "That's what she wants to see you about."

"Is it true about the ass disguising himself with a lion's skin?"

"So the fable goes; but now the colleges do it with a sheep skin."—Bison.

Changing the Nationality

A lady out shopping one day entered a butcher's shop and asked for a sheep's head. She emphatically stated that she must have English mutton.

"Sorry, mum," replied the butcher, "we only stock Scotch mutton."

The lady was most anxious to purchase the sheep's head, but she was insistent that it must be English.

Turning to the back of the shop, the butcher called his boy assistant to him and said quietly, pointing to the head of a sheep lying on the counter at the far end of the shop, "Jock, tak' the brains oot o' that heid."

Caller—"Your children play so quietly."

Mother—"Excuse me a moment."

"You're sure one bottle will cure a cold?"

"It must do so, sir—nobody's ever come back for a second."

"Yes, my friends," said the theological lecturer, "some admire Moses, who instituted the old law; some, Paul, who spread the new. But after all, which character in the Bible has had the largest following?" As he paused, a voice from the back bench shouted: "Ananias!"

A man once rented a plot of ground to a negro neighbor, upon which corn was to be planted, and at harvest time the renter was to receive one-fourth of the yield. Meeting the negro during harvest time, he asked:

"Look here, Sam, have you harvested the corn?"

"Yes, sah, boss, long ago!"

"Well, wasn't I to get one-fourth?"

"Yes, boss, that's the truf, but there wasn't no fourth! Der was jes' three loads, and dey was mine."

"Young man," said the boss, "you told me yesterday afternoon you had an engagement with your dentist."

"Yes, sir, I did."

"Well, I saw you at the ball game."

"Yes, sir. The tall man sitting next to me was my dentist."

"I would like to see a pair of shoes that would fit my feet."

"So would I."

"I'm sorry your mother can't come, Winnie. What shall we do with the extra ticket?"

"Oh, give it to the man you go out to meet in the intervals, George; then he can come in and sit with us!"

The chemist was becoming wearied. He had been explaining and pricing dozens of articles to the shopper, who didn't really want to buy anything at all. Finally she picked up a bottle.

"Is this Pest Exterminator reliable?" she asked. "How is it applied?"

"You take a tablespoonful every half-hour, ma'am," the chemist replied with fiendish emphasis.

No more questions were asked.

Before you put the baby on the floor, clean it thoroughly with an Apex. Phone M. E. W—, 123J.—Craig Courier.

"I thought," said the disappointed friend, "you told me this election was going to be a walk-over."

"Well," answered the former candidate, "it was. I was the doorstep."—Washington Star.

"Lady, could yer gimme a quarter to get where me family is?"

"Certainly, my poor man, here's a quarter. Where is your family?"

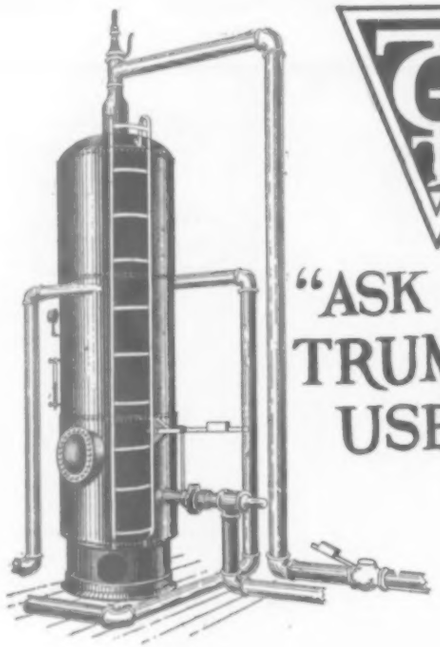
"At de movies."

Young Bride — "Won't oos 'ittle umpsie dumpsie kiss oos 'ittle ootsie wootsie?"

Man (in next berth)—"You can't go anywhere nowadays without running across some of those——foreigners!"

"The liquor you used to get in Crimson Gulch would make a man crazy."

"It's different now," mused Cactus Joe. "A man has to be kind o' crazy before he'd think of swallowing it."——Washington Star.



"ASK ANY TRUMBLE USER"

You don't want to buy a gas trap on claims—but on RESULTS. And you will find ample opportunity to judge the results on the Trumble Gas Trap in all the leading oil fields.

The Trumble was the pioneer gas trap. Naturally it has been imitated. But it has kept many jumps ahead of the rest. It gives you a combination of long reputation and present performance.

Write for full information and prices.

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PUMPS

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SENECA FALLS, N. Y.

GOULDS

Laredo Well Increases Flow to 56 Barrels Hour

Laredo, Texas.—The recent producer of the Rydal Oil Corporation, on block 5 of subdivision of surveys 580-581 and 582, is now flowing 56 barrels per hour. Two inch tubing was set on a packer and during the first hour flowed 38 barrels and later increased to 56 barrels per hour. This well is causing considerable interest in the property to the south.

The Rydal Oil Corporation and the Rycade Oil Corporation purchased the entire holdings of W. O. Wheatley which consists of some 2300 acres located in survey 580-581-582 1-2-5 and 108 in Zapata and Jim Hogg Counties. The consideration was $25,000 cash and $200 per acre in oil coupled with development on each 80-acre tract which is considered as a separate contract. Three wells are to be drilled within a reasonable time on different portions of the acreage.

One well was completed during the past week by O. W. Killam in the Henne, Winch and Fariss pool, Jim Hogg County. The well came in for 200 barrels from the depth of 2060 feet. The well shows considerable gas and from appearances may increase. It is located on block 12, survey 256 on the Ascencion Martinez ranch.

The deep test drilled by O. W. Killam on block 13 of the same survey is below 2341 feet, having passed up the present producing horizon at 2050 feet. This test will be drilled to the 3000-foot level.

The Texas Company deep tests on the Jennings ranch, Jennings gas field, Zapata County cored a rich oil and gas sand at 3317 feet. Casing is on the railroad cars at Aguilares, Webb County for this well.

United Oil Company Bonds Will Finance Extensions

Los Angeles, Calif.—In order to provide for enlargement of refinery facilities, extension of pipe lines, increase in storage capacity, the purchase of a tank steamer, the development of a marine terminal and establishment of additional distributing stations, and issue of $5,000,000 first mortgage, ten year convertible six-and-one-half percent gold bonds of the United Oil Company of California has been underwritten by a group of Los Angeles and San Francisco banking houses. The bonds will sell for $100 and interest.

Operating solely as a producing company until August 1, 1923, the United Oil Company, which was organized under California Laws in 1909, acquired the entire capital stock of the Richfield Oil Company, one of the state's major refiners and distributors, thus establishing itself firmly in all three branches of the industry.

Holdings of the company in fee and lease of proven and potential oil lands amount to about 18,000 acres.

Officers of the United Oil Company of California are J. A. Talbot, president; C. M. Fuller, vice president; H. H. Maddren, vice president; Irving Hellman, treasurer, and J. S. Wallace, secretary.

Gulf Refining Company

OKLAHOMA
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Refiners of PETROLEUM

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A classified directory of all products used in the production of oil together with names of recognized supply dealers and manufacturers from whom they may be purchased. The concerns appearing in the Guide are regular advertisers in The OIL WEEKLY and further information including addresses can be secured by referring to their advertisements. Alphabetical Advertisers Index on page 22.

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Humble Oil has a high enough fire test so that it does not burn at cylinder temperatures during the intake, exhaust and compression strokes.

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The wrong oil means a loss of power, loss of time and expense for replacements. You can avoid these losses by asking for the recommendations of our lubricating engineers—for your particular machinery.

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Continental Supply Co.
D. F. Connolly Agency
Gustin Bacon Manufacturing Co.
Frick-Reid Supply Co.
The National Supply Cos.
Peden Iron & Steel Co.
Pelican Well Tool & Supply Co.
Republic Supply Co.

Paints—
Continental Supply Co.
Peden Iron & Steel Co.

Panel Boards—
General Electric Co.
Westinghouse Elec. & Mfg. Co.

Pipe—
A. M. Byers Co.
Continental Supply Co.
Frick-Reid Supply Co.
Harrisburg Pipe & Pipe Bending Co.
International Supply Co.
The National Supply Cos.
Oil Well Supply Co.
Peden Iron & Steel Co.
Reading Iron Co.
Republic Supply Co.
Superior Tube Company

Patents—
Hardway & Cathey
Lancaster & Allwine
Jack A. Schley
Jesse R. Stone

Pipe Grips—
Continental Supply Co.

Pipe Insulation—
Johns-Manville, Inc.

Pipe Screwing Machines—
Buckeye Traction Ditcher Co.

Pipe Threading Machines—
Jarecki Mfg. Company
Standard Engineering Co.

Pipe Vises—
J. H. Williams & Co.

Pipe Wrenches—
Continental Supply Co.
Dunn Mfg. Co.
The Guiberson Corp.
Trimont Mfg. Co.
LeBus Rotary Tool Works
Republic Supply Co.
J. H. Williams & Co.
Wickwire Spencer Steel Corp.

Portable Buildings—
Butler Manufacturing Co.
International Derrick & Equipment Co.

Portable Drilling Rigs—
Bridgeport Machinery Co.
Continental Supply Co.
Lee C. Moore & Co.
Parkersburg Rig & Reel Co.
The National Supply Cos.
Waukesha Motor Co.

Pulleys—
Continental Supply Co.
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.

Pulling Machines—
Clark Machine Co.
Continental Supply Co.
Iron King Mfg. Co.

Pumps—
Axelson Machine Co.
Continental Supply Co.
D. & B. Pump & Sup. Co.
C. C. Fetty
Frick-Reid Supply Co.
Gardner Governor Co.
Gaso Pump & Burner Mfg. Co.
Goulds Manufacturing Co.
Jarecki Mfg. Company
Lucey Manufacturing Corp.
National Transit Pump & Machine Co.
Northrup Equipment Company
Oil Well Supply Co.
Pelican Well Tool & Supply Co.
Republic Supply Co.
Southern Engine & Pump Co.
Texas Oil Pump Co.
United Iron Works, Inc.
Waukesha Motor Co.

Portable Compressors—
Continental Supply Co.
Sullivan Machinery Co.

Pumping Engines—
C. F. Camp Co.
McIntosh & Seymour Corp.

Pumping Equipment—
General Electric Company
Northrup Equipment Company
Shaffer Specialty Co.

Pumping Powers—
Continental Supply Co.
C. C. Fetty
Frick-Reid Supply Co.
International Supply Co.
Jarecki Mfg. Co.
Jensen Bros. Mfg. Co.
Spence Machine Co.

Regulators—
Westcott and Greis

Refined Products—
Gulf Refining Co.
Humble Oil & Refining Co.
Magnolia Petroleum Co.
Sinclair Refining Co.
Texas Co.

Recorders—
Fort Worth Laboratories

Refinery Equipment—
American Tank Co.
Butler Mfg. Co.
Continental Supply Co.
Oil Conservation Engineering Co.
Petroleum Iron Works Co., The
Republic Supply Co.
Smith Separator Co.
Titusville Iron Works
United Iron Works, Inc.
Westcott and Greis
Wyatt Metal & Boiler Works

Rig Irons—
Bradford Rig & Reel Co.
Continental Supply Co.
International Supply Co.
Lee C. Moore & Co.
Oil Well Supply Co.
Parkersburg Rig & Reel Co.
Republic Supply Co.

Rotaries—
International Supply Co.

Rotary Rock Bits—
Continental Supply Co.
Hughes Tool Co.
Reed Roller Bit Co.

Rotary Fish Tail Bits—
Continental Supply Co.
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
Republic Supply Co.

Safety Casing Clamps—
Shaffer Specialty Co.

Sand Reel Supports—
Shaffer Specialty Co.

Separators—
American Tank Co.
Butler Mfg. Co.
Continental Supply Co.
Lorraine Corp.
M. & V. Tank Co.
Smith Separator Co.
Trumble Gas Traps

Specialty Manufacturers—
Shaffer Specialty Co.

Steel Bull Wheels—
Bradford Rig & Reel Co.
McIntosh & Seymour Corp.

Structural Steel—
Butler Mfg. Co.
United Iron Works, Inc.

Steel Derricks—
Continental Supply Co.
Emsco Steel Products Co.
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.
Superior Tube Company

Steel Crown Blocks—
Continental Supply Co.
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.
Parkersburg Rig & Reel Co.
Superior Tube Co.

Steel Storage Tanks—
American Tank Co.
Butler Mfg. Co.
Continental Supply Co.
Petroleum Iron Works Co., The

Still Covering—
Johns-Manville, Inc.

Strainers—
Continental Supply Co.
Emsco Steel Products Co.
Howard Smith Company
Kobe, Inc.
Layne & Bowler Co.
J. H. McEvoy & Co.
Pelican Well Tool & Supply Co.

Stuffing Boxes—
A. W. Fawcett

Special Steels—
Central Steel Co.

Steel Tanks—
Bradford Rig & Reel Co.

Sucker Rod Lines—
Continental Supply Co.

Sucker Rod Elevators—
The Cunningham Co.

Sucker Rod Hangers—
Lorraine Corp.
Robinson Tool Co.

Sucker Rod Hooks—
The Cunningham Co.

Sucker Rod Sockets—
Baird Supply Co.
Brown Welding & Machine Co.
Continental Supply Co.
The Cunningham Co.
Shaffer Specialty Co.
Western Supply Co.

Sucker Rods—
Axelson Machine Co.
Continental Supply Co.
Columbus Sucker Rod Co.
D. & B. Pump & Sup. Co.
Dunn Mfg. Co.
Frick-Reid Supply Co.
S. M. Jones Co.
The National Supply Cos.
Oil Well Supply Co.
J. F. Ratigan
Republic Supply Co.

Swabs—
Continental Supply Co.
The Cunningham Co.
Shaffer Specialty Co.

Tank Bolts—
Continental Supply Co.

Tanks—
American Tank Co.
Butler Mfg. Co.
Black, Sivalls & Bryson
Continental Supply Co.
The Brownell Co.
Kansas City Struct. Steel Co.
Maloney Tank Co.
M. & V. Tank Co.
Parkersburg Rig & Reel Co.
Petroleum Iron Works Co., The
United Iron Works
Wyatt Metal & Boiler Works

Tank Deadwood—
Robertson-McDonald Lumber Co.

Tank Equipment—
Continental Supply Co.
Johns-Manville, Inc.
Oil Conservation Engineering Co.
Parkersburg Rig & Reel Co.
Westcott and Greis.

Tank Insulation—
Johns-Manville, Inc.

Tank Roofs—
Johns-Manville, Inc.

Temper Screws—
Burns Tool Co.

Thermometers—
Continental Supply Co.
Fort Worh Laboratories

Timbers—
Robertson-McDonald Lumber Co.

Tongs—
Bridgeport Machine Co.
Continental Supply Co.
Dunn Mfg. Co.
Guiberson Corp.
Howard Smith Company
LeBus Rotary Tool Works
Pelican Well Tool & Supply Co.
J. H. Williams & Co.
Wilson & Willard Mfg. Co.

Tool Joints—
Baash-Ross Tool Co.
Bridgeport Machine Co.
Continental Supply Co.
Emsco Steel Products Co.
Hughes Tool Co.
Pelican Well Tool & Sup. Co.
Regan Forge & Engineering Co.
Republic Supply Co.

Tools (Fishing and Drilling)—
Acme Fishing Tool Co.
Bridgeport Machine Co.
Brown Welding & Machine Co.
Continental Supply Co.
Frick-Reid Supply Co.
Houston Engineers, Inc.
Hughes Tool Co.
International Supply Co.
Oil Well Supply Co.
Peden Iron & Steel Co.
Pelican Well Tool & Supply Co.
Regan Forge & Engineering Co.
Republic Supply Co.
Spang & Co.
Star Drilling Machine Co.
Sullivan Machinery Co.

Toothless Slips—
Le Bus Rotary Tool Works

Tractor Winch—
C. F. Camp Co.
Rock Island Plow Co.
Twin City Co.

Traveling Blocks—
Baash-Ross Tool Co.
Continental Supply Co.
Lufkin Foundry & Machine Co.
Regan Forge & Engineering Co.

Tret-O-Lite—
W. S. Barnickel & Co.

Tubing Catcher—
Continental Supply Co.
Dunn Mfg. Corp.
Guiberson Corp.

Tubing Lines—
Continental Supply Co.

Tubing—
Continental Supply Co.
Republic Supply Co.
Reading Iron Co.

Underreamers—
Bridgeport Machine Co.
Continental Supply Co.
Wilson & Willard Mfg. Co.

Vacuum Pumps—
Continental Supply Co.
Sullivan Machinery Co.

Valves—
Bradford Motor Works
Continental Supply Co.
Darling Valve & Mfg. Co.
The Charles N. Hough Mfg. Co.
Ludlow Valve Mfg. Co.
The Lunkenheimer Company
Norris Bros.
Northrup Equipment Company
Oil Conservation Engineering Co.
The Wm. Powell Co.
Smith Separator Co.
Sour Lake Machine Co.
Southern Brass Mfg. & Plating Co.
Texas Oil Pump Co.
Westcott Valve Mfg. Co.

Valves, Gate—
The Lukenheimer Company

Valves and Fittings—
Continental Supply Co.
Darling Valve & Mfg. Co.
D. & B. Pump & Supply Co.
Jarecki Mfg. Company
Ludlow Valve Mfg. Co.
Lufkin Foundry & Machine Co.
The Lukenheimer Co.
The National Supply Cos.
Peden Iron & Steel Co.
The Wm. Powell Co.
Pittsburgh Reinforced Brazing & Machine Co.
Republic Supply Co.
United Iron Works

Vapor Tight Insulated Tank Tops—
Johns-Manville, Inc.

Walking Beams—
Continental Supply Co.
International Derrick & Equipment Co.
Lee C. Moore & Co., Inc.

Welding and Cutting Equipment—
Continental Supply Co.

Working Barrels—
Axelson Machine Co.
Continental Supply Co.
D. & B. Pump & Sup. Co.
Howard Smith Company
Northrup Engineering Company
Republic Supply Co.
The Charles N. Hough Mfg. Co.
Southern Brass Mfg. & Plating Co.
Texas Oil Pump Co.

Water Gauges—
Continental Supply Co.
J. E. Shaffer Company
Smith Separator Co.

Water Cans—
Continental Supply Company
H. P. Gott Mfg. Co.

Water Softening Compound—
Ward Chemical Co.

Wire Rope—
American Cable Co.
Bridgeport Machine Co.
Continental Supply Co.
International Supply Co.
Regan Forge & Engineering Co.
Republic Supply Co.
The National Supply Cos.
Wickwire Spencer Steel Corp.

Wire Rope Fittings—
American Cable Co.

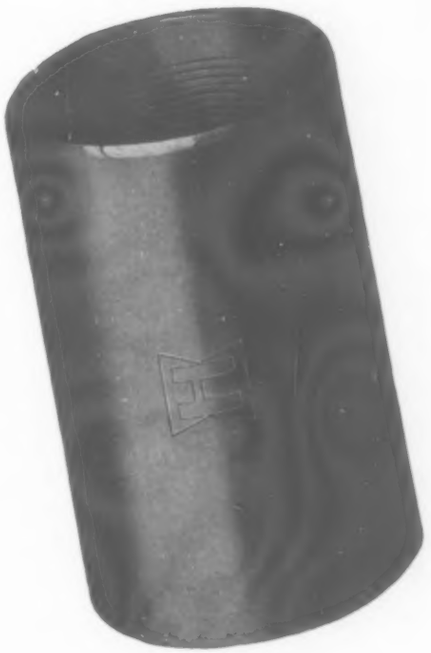
Wire Rope Slings—
American Cable Co.

And Then She Parted!

The derrick could stand it and the draw-works were new, so they gave her all there was—and then she parted!

Twelve lengths of tubing and **half a coupling** was all they could bring up without the fishing tools, and they were within a hundred feet of pay sand.

Had Harrisburg Forged Seamless Steel Couplings been used they might have parted the tubing, wrecked the draw-works, or pulled the derrick in, but they couldn't blame it on the couplings. For Harrisburgs are Forged Seamless from special oil field steel—no weld—no weakness. They are uniform in size, temper, thread and taper—**always.** They are the couplings you can bank on to stick with it 'til you bring in oil, and then—on to the next!



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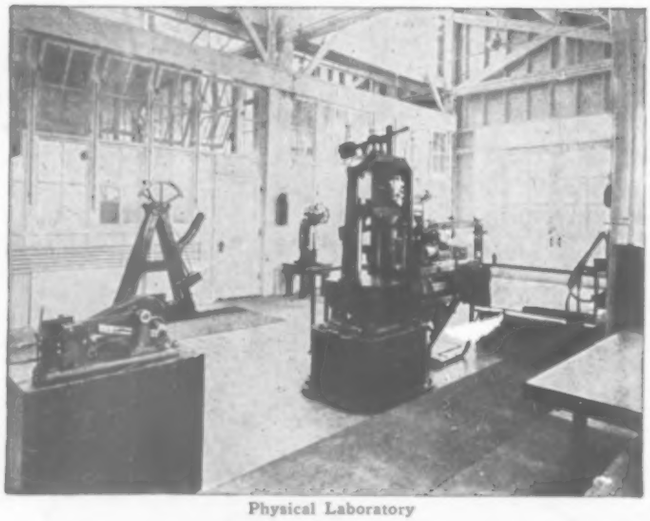

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In this laboratory every heat of steel is given a complete test and only that which meets the Hughes requirements is used.

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The Physical Laboratory contains testing machines of the latest design, constructed to duplicate the stresses and loads to which Hughes Tools are subjected under actual field conditions.

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